

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF CHEMICAL SAFETY AND
POLLUTION PREVENTION

MEMORANDUM

Date: 22-JUN-2017

SUBJECT: **Imidacloprid.** Acute and Chronic Aggregate Dietary (Food and Drinking Water) Exposure and Risk Assessments for the Registration Review Risk Assessment.

PC Code: 129099

Decision Nos.: 519957 & 525832

Petition No.: NA

Risk Assessment Type: Dietary

TXR No.: NA

MRID No.: NA

DP Barcodes: D438392 & D438433

Registration No.: NA

Regulatory Action: Registration Review

Case No.: 7605

CAS No.: 138261-41-3

40 CFR: §180.472

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Executive Summary

Acute and chronic aggregate dietary (food and drinking water) exposure and risk assessments were conducted using the Dietary Exposure Evaluation Model software with the Food Commodity Intake Database (DEEM-FCID) Version 3.16. This software uses 2003-2008 food consumption data from the U.S. Department of Agriculture's (USDA's) National Health and Nutrition Examination Survey, What We Eat in America, (NHANES/WWEIA). The analyses were conducted in support of the registration review risk assessment. This memorandum was

reviewed by two peer reviewers of the DESAC, per DESAC Standard Operating Procedure (SOP) 2012.1.

Acute Dietary Exposure Assessment: An acute dietary (food and drinking water) exposure and risk assessment was conducted for the general U.S. population and various population subgroups. The acute assessment was slightly refined, assuming tolerance-level residues for most registered commodities and 100% crop treated (CT) for all registered commodities. Anticipated residues (ARs) and empirical processing factors were determined for several commodities based on previously submitted residue data (see Table 2). Exposure to drinking water was incorporated directly in the dietary assessment using the acute (peak) concentration for ground water (92 ppb) generated by the *WI-corn ground water scenario*. This assessment indicates that the acute dietary risk estimates are below HED's level of concern, <100% acute population-adjusted dose (aPAD), at the 95th exposure percentile for the general U.S. population and all other population subgroups. The acute dietary risk is estimated for the U.S. population at 38% of the aPAD and the most highly exposed population subgroup, children 1-2 years old, at 93% of the aPAD.

Chronic Dietary Exposure Assessment: A chronic dietary (food and drinking water) exposure and risk assessment was conducted for the general U.S. population and various population subgroups. The chronic assessment was somewhat refined, assuming tolerance-level residues for most commodities, and ARs and processing factors, calculated based on previously submitted residue data (see Table 2), for several commodities. In addition, average %CT information was used for several commodities. Exposure to drinking water was incorporated directly into the dietary assessment using the chronic (annual average) concentration for ground water (84.9 ppb) generated by the *WI-corn ground water scenario*. This assessment concludes that the chronic dietary risk estimates are below HED's level of concern (<100% cPAD) for the general U.S. population and all population subgroups. The chronic dietary risk is estimated for the U.S. population at 5.5% of the cPAD and the most highly exposed population subgroup, children 1-2 years old, at 12% of the cPAD.

I. Introduction

Dietary risk assessment incorporates both exposure and toxicity of a given pesticide. For acute and chronic assessments, the risk is expressed as a percentage of a maximum acceptable dose (i.e., the dose that HED has concluded will result in no unreasonable adverse health effects). This dose is referred to as the PAD. The PAD is equivalent to the point of departure (POD, NOAEL, LOAEL, e.g.) divided by the required uncertainty or safety factors.

For acute and non-cancer chronic exposures, HED is concerned when estimated dietary risk exceeds 100% of the PAD. References that discuss the acute and chronic risk assessments in more detail are available on the EPA/pesticides web site: "Available Information on Assessing Exposure from Pesticides, A User's Guide," 21-JUN-2000, web link:
<http://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OPP-2007-0780-0001&disposition=attachment&contentType=pdf>; or see SOP 99.6 (20-AUG-1999).

The most recent dietary risk assessment for imidacloprid was conducted by J. Tyler in conjunction with a Section 3 request for use on oyster beds, and a Section 18 Emergency Exemption request for use on sugarcane in LA (Memo, 07-MAR-2013; D400187).

II. Residue Information

Residues of Concern: The nature of imidacloprid residues in plants and livestock is adequately understood. The residue of concern in plants and livestock is imidacloprid and its metabolites containing the 6-chloropyridinyl moiety, all expressed as the parent, as specified in 40 CFR §180.472.

Established Tolerances: Tolerances are currently established for the combined residues of the insecticide imidacloprid and its metabolites containing the 6-chloropyridinyl moiety, all expressed as the parent, under 40 CFR §180.472 in/on various plant and livestock commodities. Section 18 Emergency Exemption tolerances with expiration/revocation dates are established in/on plant commodities under 40 CFR §180.472(b), and indirect or inadvertent tolerances are established as a result of application of the pesticide to growing crops and other non-food crops under 40 CFR §180.472(d). Note that this assessments includes tolerances proposed under PP#6E8498, which will be undergoing HED review at a future date. Revisions to the existing tolerances are recommended at this time, as listed in Table 1.

Table 1. Tolerance Summary for Imidacloprid.

Commodity	Currently Established Tolerance (ppm)	Recommended Tolerance (ppm)	Comments (correct commodity definition)
§180.472(a) General			
Acerola	1.0	1.0	
Almond, hulls	4.0	4.0	
Apple	0.5	-	Tolerance should be revoked upon establishment of Fruit, pome, group 11
Apple, wet pomace	3.0	3.0	
Aspirated grain fractions	240	240	Grain, aspirated fractions
Atemoya	0.30	0.30	
Artichoke, globe	2.5	2.5	
Avocado	1.0	1.0	
Banana	0.50	0.50	
Beet, sugar, molasses	0.30	0.30	
Beet, sugar, roots	0.05	0.05	
Beet, sugar, tops	0.50	0.50	
Biriba	0.30	0.30	
Blueberry	3.5	3.5	
Borage, seed	0.05	0.05	
Caneberry, subgroup 13-A	2.5	2.5	<i>Caneberry subgroup 13-07A</i>
Canistel	1.0	1.0	
Canola, seed	0.05	0.05	
Cattle, fat	0.30	0.30	
Cattle, meat	0.30	0.30	
Cattle, meat byproducts	0.30	0.30	
Celtuce	-	6.0	Commodity displaced by the crop group conversion.
Cherimoya	0.30	0.30	
Citrus, dried pulp	5.0	5.0	
Coffee, green bean	0.80	1.0	Harmonize with Codex MRL
Cotton, gin byproducts	4.0	4.0	
Cotton, meal	8.0	8.0	
Cotton, undelinted seed	6.0	6.0	
Crambe, seed	0.05	0.05	
Cranberry	0.05	0.05	
Currant	3.5	3.5	
Custard apple	0.30	0.30	

Table 1. Tolerance Summary for Imidacloprid.

Commodity	Currently Established Tolerance (ppm)	Recommended Tolerance (ppm)	Comments (correct commodity definition)
Egg	0.02	0.02	
Elderberry	3.5	3.5	
Feijoa	1.0	1.0	
Fennel, florence, fresh leaves and stalk	-	6.0	Commodity displaced by the crop group conversion.
Fish	0.05	0.05	
Fish-shellfish, mollusc	0.05	0.05	
Flax, seed	0.05	0.05	
Fruit, citrus, group 10	0.70	1.0	<i>Fruit, citrus, group 10-10</i> Harmonize with Codex MRL
Fruit, pome, group 11	0.6	0.60	<i>Fruit, pome, group 11-10</i>
Fruit, stone, group 12	3.0	3.0	<i>Fruit, stone, group 12-12</i>
Goat, fat	0.30	0.30	
Goat, meat	0.30	0.30	
Goat, meat byproducts	0.30	0.30	
Gooseberry	3.5	3.5	
Grain, cereal, forage, fodder and straw, group 16, forage, except rice	7.0	7.0	
Grain, cereal, forage, fodder and straw, group 16, hay, except rice	6.0	6.0	
Grain, cereal, forage, fodder and straw, group 16, stover, except rice	0.30	0.30	
Grain, cereal, forage, fodder and straw, group 16, straw, except rice	3.0	3.0	
Grain, cereal, group 15, except rice	0.05	0.05	
Grape	1.0	1.0	
Grape, juice	1.5	1.5	
Grape, raisin	1.5	1.5	
Guava	1.0	1.0	
Herbs subgroup 19A, dried herbs	48.0	48	<i>Herb subgroup 19A, dried herbs</i> Correct number of significant figures to be consistent with HED policy
Herbs subgroup 19-A, fresh herbs	8.0	8.0	<i>Herb subgroup 19A, fresh herbs</i>
Hog, fat	0.30	0.30	
Hog, meat	0.30	0.30	
Hog, meat byproducts	0.30	0.30	
Hop, dried cones	6.0	6.0	
Horse, fat	0.30	0.30	
Horse, meat	0.30	0.30	
Horse, meat byproducts	0.30	0.30	
Huckleberry	3.5	3.5	
Ilama	0.30	0.30	
Jaboticaba	1.0	1.0	
Juneberry	3.5	3.5	
Kava, leaves	4.0	4.0	
Kava, roots	0.40	0.40	
Kohlrabi	-	6.0	Commodity displaced by the crop group conversion.
Leaf petioles subgroup 4B	6.0	6.0	<i>Leaf petiole vegetable subgroup 22B</i>
Leafy greens subgroup 4A	3.5	3.5	<i>Leafy greens subgroup 4-16</i>
Lettuce, head	3.5	-	See Leafy greens subgroup 4-16
Lettuce, leaf	3.5	-	See Leafy greens subgroup 4-16
Lingonberry	3.5	3.5	
Longan	3.0	3.0	
Lychee	3.0	3.0	
Mango	1.0	1.0	

Table 1. Tolerance Summary for Imidacloprid.

Commodity	Currently Established Tolerance (ppm)	Recommended Tolerance (ppm)	Comments (correct commodity definition)
Milk	0.10	0.10	
Mustard, black, seed	0.05	0.05	
Mustard, field, seed	0.05	0.05	
Mustard, Indian, seed	0.05	0.05	
Mustard, rapeseed, seed	0.05	0.05	
Mustard, seed	0.05	0.05	
Nut, tree, group 14	0.05	0.05	<i>Nut, tree, group 14-12</i>
Okra	1.0	-	Tolerance should be revoked upon establishment of Vegetable, fruiting, group 8-10
Olive	-	2.0	Proposed in PP#6E8498
Onion, dry bulbs, subgroup 3-07A	0.15	0.15	<i>Onion, bulb, subgroup 3-07A</i>
Onion, green, subgroup 3-07B	2.5	2.5	
Papaya	1.0	1.0	
Passionfruit	1.0	1.0	
Peanut	0.45	0.45	
Peanut, hay	35	35	
Peanut, meal	0.75	0.75	
Pecan	0.05	-	Tolerance should be revoked upon establishment of Nut, tree, group 14-12
Persimmon	3.0	3.0	
Pistachio	0.05	-	Tolerance should be revoked upon establishment of Nut, tree, group 14-12
Pomegranate	0.90	0.90	
Potato, chip	0.40	0.40	<i>Potato, chips</i>
Potato, processed potato waste	0.90	0.90	
Poultry, fat	0.05	0.05	
Poultry, meat	0.05	0.05	
Poultry, meat byproducts	0.05	0.05	
Pulasan	3.0	3.0	
Rambutan	3.0	3.0	
Rapeseed, seed	0.05	0.05	
Raspberry, wild	2.5	2.5	
Safflower, seed	0.05	0.05	
Salal	3.5	3.5	
Sapodilla	1.0	1.0	
Sapote, black	1.0	1.0	
Sapote, mamey	1.0	1.0	
Sheep, fat	0.30	0.30	
Sheep, meat	0.30	0.30	
Sheep, meat byproducts	0.30	0.30	
Soursop	0.30	0.30	
Soybean, forage	8.0	8.0	
Soybean, hay	35	35	
Soybean, meal	4.0	4.0	
Soybean, seed	3.5	3.5	
Spanish lime	3.0	3.0	
Star apple	1.0	1.0	
Starfruit	1.0	1.0	
Strawberry	0.50	0.50	
Sugar apple	0.30	0.30	
Sunflower, seed	0.05	0.05	
Tea	-	50	Proposed in PP#6E8498
Tomato, paste	6.0	6.0	
Tomato, puree	3.0	3.0	

Table 1. Tolerance Summary for Imidacloprid.			
Commodity	Currently Established Tolerance (ppm)	Recommended Tolerance (ppm)	Comments (correct commodity definition)
Vegetable, brassica leafy, group 5	3.5	3.5	Brassica head and stem vegetable group 5-16
Vegetable, cucurbit, group 9	0.5	0.50	Correct number of significant figures to be consistent with HED policy
Vegetable, fruiting, group 8	1.0	1.0	Vegetable, fruiting, group 8-10
Vegetable, leaves of root and tuber, group 2	4.0	4.0	
Vegetable, legume, group 6, except soybean	4.0	4.0	
Vegetable, root and tuber, group 1, except sugar beet	0.40	0.40	Vegetable, root and tuber (except sugar beet), subgroup 1B
Watercress	3.5	-	Tolerance should be revoked upon establishment of Leafy greens subgroup 4-16
Watercress, upland	3.5	-	Tolerance should be revoked upon establishment of Leafy greens subgroup 4-16
Wax jambu	1.0	1.0	
§180.472(b) Section 18 emergency exemptions			
Sugarcane, cane	6.0	6.0	
Sugarcane, molasses	50	50	
§180.472(d) Indirect or inadvertent residues			
Rice, grain	0.05	0.05	
Vegetable, foliage of legume, group 7	2.5	2.5	
Soybean, vegetable	-	0.30	Only commodity not covered by vegetable, legume, group 6, except soybean tolerance in (a).
Vegetable, legume, group 6	0.3	-	Covered by vegetable, legume, group 6, except soybean tolerance in (a) and soybean, vegetable in (d).

Residue Data used for Acute and Chronic Assessments: The acute assessment assumed tolerance-level residues for all commodities, except apple; apple, juice; grape; grape, juice; grape, raisins; orange; orange, juice; soybean, seed; and soy milk (see Table 2). For these commodities, ARs were determined based on previously submitted residue data. Maximum residues were used for non-blended commodities, and average residues were used for blended commodities.

The chronic assessment assumed tolerance-level residues for all commodities, except apple; apple, juice; banana; broccoli; grape; grape, juice; grape, raisin; tomato; oranges; orange, juice; soybean seed; and soybean milk (see Table 2). For these commodities, ARs were determined based on previously submitted residue data. Average residues were used for blended and non-blended commodities.

Livestock: The acute and chronic assessments assumed tolerance-level residues for all livestock commodities.

Processing Factors: Processing factors, based on results of previously submitted processing studies, were used in the acute and chronic dietary exposure assessments for apple, juice (0.77x); grape, juice (1.15x); grape, raisins (1.95x); tomato, puree (2.7x); tomato, sauce (1.5x), tomato,

dried (3.6x); tomato, paste (5.1x); and soy milk (0.25x). Default DEEM-FCID processing factors were used for all other registered processed commodities.

Table 2. Summary of ARs and Empirical PFs used in Acute and Chronic Dietary Exposure Assessment for Imidacloprid.

Commodity	Tolerance (ppm)	AR (ppm)	PF	Source
Apple	0.6	0.438 (acute) ¹ 0.093 (chronic) ¹	Apple, juice - 0.77	F. Griffith, 30-OCT-1995; D219796
Banana	0.5	0.39 (chronic)	-	J. Tyler, 14-JUN-2006; D322834
Broccoli	3.5	1.06 (chronic)	-	F. Griffith, 19-JAN-1995; D210520
Grape	1.0	0.61 (acute) 0.17 (chronic)	-	F. Griffith, 22-JUN-1994; D194206
Grape, juice	1.5	0.61 (acute) 0.17 (chronic)	1.15x	
Grape, raisin	1.5	0.61 (acute) 0.17 (chronic)	1.95x	
Tomato	1.0	0.27 (chronic)	Tomato, puree - 2.7x; Tomato, sauce - 1.5x; Tomato, dried - 3.6x; Tomato, paste - 5.1x	F. Griffith, 22-JUN-1994; D194206
Oranges	0.70	0.61 (acute and chronic) ²	Orange, juice - 0.03x	Y. Donovan, 23-MAR-1999, D242320
Soybean, seed	3.5	0.42 (acute and chronic)	-	W. Cutchin, 14-MAY-2007, D332757
Soy milk	-	0.42 (acute and chronic)	0.25x	Processing Factor Focus Group (PFFG) Guidance Document
Sugarcane, cane	6.0	0.15 (acute and chronic)	-	J. Tyler <i>et al.</i> , 07-MAR-2013; D399719

¹ Residues adjusted for 1.69X exaggerated application rate.

² Highest residue, average not reported.

III. Percent Crop Treated Information

In a memo dated 06-OCT-2015, the Biological and Economics Analysis Division (BEAD) provided updated estimated % CT information for several commodities (Memo, C. Paisley-Jones). The acute assessment assumed 100% crop treated for all commodities. For the chronic assessment, the following average weighted % CT information was used (see Attachment 5 for more detail): almonds: <2.5%; apples: 30%; artichokes: 15%; avocados: <1%; beans, green: 5%; blueberries: 10%; broccoli: 65%; Brussels sprouts: 50%; cabbage: 30%; caneberries: 15%; cantaloupe: 40%; carrots: 15%; cauliflower: 60%; celery: 10%; cherries: 25%; chicory: 10%; corn (seed treatment): <2.5%; cotton (seed treatment): 10%; cucumbers: 10%; dry beans/peas: <1%; garlic: 5%; filberts (hazelnuts): 5%; grapefruit: 30%; grapes: 30%; honeydew: 30%; lemons: 10%; lettuce: 65%; nectarines: <2.5%; onions: <2.5%; oranges: 25%; peaches: 5%; peanuts: <1%; pears: 5%; peas, green: <2.5%; pecans: 15%; peppers: 35%; pistachios: 5%; plums/prunes: <2.5%; pomegranate, 45%; potatoes: 35%; pumpkin: 10%; sorghum (seed treatment): 15%; soybeans (seed treatment): 10%; spinach: 25%; squash: 15%; strawberries: 5%; sugar beets: <2.5%; sugarcane: <2.5%; sweet corn: <1%; tangerines: 25%; tomatoes: 30%; walnuts: 10%; watermelon: 25%; wheat (seed treatment): 15%. The 15% value for wheat was translated to all cereal grains (personal communication, J. Becker (BEAD) to J. Tyler, 13-FEB-2017). Default values of 1% and 2.5% were used for all commodities which were reported as having <1% and <2.5% CT, respectively. In addition, for crops for which an average % CT value was also reported for seed treatment applications only, the higher of the two values was

used in the chronic assessment. The %CT for livestock commodities is based on livestock feed item used in the dietary burden with the highest %CT (potatoes, 35% for mammals; wheat, 15% for poultry).

IV. Drinking Water Data

The most recent estimated drinking water concentrations (EDWCs) for imidacloprid and its degradates (imidacloprid urea, imidacloprid guanidine, and imidacloprid olefin) were provided by the Environmental Fate and Effects Division (EFED) in a memo dated 22-DEC-2016 (Memo, M. Ruhman; D437059), and were incorporated directly into this dietary assessment. Water residues were incorporated in the DEEM-FCID into the food categories “water, direct, all sources” and “water, indirect, all sources.” The ground water values, from *WI-corn ground water scenario*, for the acute (peak) and chronic (annual average) EDWCs are 92 ppb and 84.9 ppb, respectively.

V. DEEM-FCID Program and Consumption Information

Imidacloprid acute and chronic dietary exposure assessments were conducted using the DEEM-FCID, Version 3.16, which incorporates 2003-2008 consumption data from USDA's NHANES/WWEIA. The data are based on the reported consumption of more than 20,000 individuals over two non-consecutive survey days. Foods “as consumed” (e.g., apple pie) are linked to EPA-defined food commodities (e.g., apples, peeled fruit - cooked; fresh or N/S; baked; or wheat flour - cooked; fresh or N/S, baked) using publicly available recipe translation files developed jointly by USDA/ARS and EPA. For chronic exposure assessment, consumption data are averaged for the entire U.S. population and within population subgroups. However, for acute exposure assessment, consumption data are retained as individual consumption events. Based on analysis of the 2003-2008 WWEIA consumption data, which took into account dietary patterns and survey respondents, HED concluded that it is most appropriate to report risk for the following population subgroups: the general U.S. population, all infants (<1 year old), children 1-2, children 3-5, children 6-12, youth 13-19, adults 20-49, females 13-49, and adults 50-99 years old.

For a chronic dietary exposure assessment, an estimate of the residue level in each food or food-form (e.g., orange or orange juice) on the food-commodity residue list is multiplied by the average daily consumption estimate for that food/food form to produce a residue intake estimate. The resulting residue intake estimate for each food/food form is summed with the residue intake estimates for all other food/food forms on the commodity residue list to arrive at the total average estimated exposure. Exposure is expressed in mg/kg body weight/day and as a percent of the cPAD. This procedure is performed for each population subgroup.

For an acute exposure assessment, individual one-day food consumption data are used on an individual-by-individual basis. The reported consumption amounts of each food item can be multiplied by a residue point estimate and summed to obtain a total daily pesticide exposure for a deterministic exposure assessment, or “matched” in multiple random pairings with residue values and then summed in a probabilistic assessment. The resulting distribution of exposures is expressed as a percentage of the aPAD on both a user (i.e., only those who reported eating relevant commodities/food forms) and a per-capita (i.e., those who reported eating the relevant commodities as well as those who did not) basis. In accordance with HED policy, per capita exposure and risk are reported for analyses performed at all levels of refinement. However, for

deterministic assessments, any significant differences in user vs. per capita exposure and risk are specifically identified and noted in the risk assessment.

VI. Toxicological Information

Imidacloprid was presented to the HED Hazard Identification and Assessment Review Committee (HIARC) on 10/8/02 (TXR NO. 0051292, D. Nixon, 10/31/02). Based on the HIARC conclusions and the imidacloprid risk assessment team's evaluation of the hazard and exposure data, the team recommended that the Food Quality Protection Act (FQPA) Safety Factor be reduced to 1X. A summary of the toxicological doses and endpoints selected for dietary exposure assessment is provided in Table 3.

Table 3. Summary of Imidacloprid Toxicological Doses/Endpoints for Use in Dietary Exposure Assessment¹.				
Exposure/ Scenario	POD	Uncertainty/ FQPA SF	RfD, PAD, LOC	Study and Toxicological Effects
Acute Dietary (general population, including infants and children)	NOAEL = 8 mg/kg/day	UF _A = 10X UF _H = 10X FQPA SF = 1X	aPAD = aRfD = 0.08 mg/kg	Subchronic oral – dog LOAEL = 22 mg/kg/day based upon an increased incidence of tremors.
Chronic Dietary (all populations)	NOAEL = 8 mg/kg/day	UF _A = 10X UF _H = 10X FQPA SF = 1X	cPAD = cRfD = 0.08 mg/kg/day	Subchronic oral – dog LOAEL = 22 mg/kg/day based upon an increased incidence of tremors
Cancer (oral, dermal, inhalation)	Classification: "Not likely to be Carcinogenic to Humans."			

¹ UF = uncertainty factor, FQPA SF = FQPA safety factor, NOAEL = no observed adverse effect level, LOAEL = lowest observed adverse effect level, PAD = population adjusted dose (a = acute, c = chronic) RfD = reference dose.

VII. Results/Discussion

As stated above, for acute and chronic assessments, HED is concerned when dietary risk exceeds 100% of the PAD. The DEEM-FCID analyses estimate the dietary exposure of the U.S. population and various population subgroups. The results reported in Table 3 are for the general U.S. Population, all infants (<1 year old), children 1-2, children 3-5, children 6-12, youth 13-19, females 13-49, adults 20-49, and adults 50-99 years.

Results of Acute Dietary (Food and Drinking Water) Exposure Analysis: An acute dietary (food and drinking water) exposure and risk assessment was conducted for the general U.S. population and various population subgroups. The acute assessment was slightly refined, assuming tolerance-level residues for most registered commodities, and 100% CT for all registered commodities. ARs and processing factors were determined for several commodities based on previously submitted residue data (see Table 2). Exposure to drinking water was incorporated directly in the dietary assessment using the acute (peak) concentration for ground water (92 ppb) generated by the *WI-corn ground water scenario*. This assessment concludes that the acute dietary risk estimates are below HED's level of concern (<100% aPAD) at the 95th exposure percentile for the general U.S. population (38% of the aPAD) and all other population subgroups. The most highly exposed population subgroup is children 1-2 years old, at 93% of the aPAD.

Results of Chronic Dietary (Food and Drinking Water) Exposure Analysis: A chronic dietary (food and drinking water) exposure and risk assessment was conducted for the general U.S. population and various population subgroups. The chronic assessment was somewhat refined, assuming tolerance-level residues for most commodities, and ARs and processing factors, calculated based on previously submitted residue data (see Table 2), for several commodities. In addition, average %CT information was used for several commodities. Exposure to drinking

water was incorporated directly into the dietary assessment using the chronic (annual average) concentration for ground water (84.9 ppb) generated by the *WI-corn ground water scenario*. This assessment concludes that the chronic dietary risk estimates are below HED's level of concern (<100% cPAD) for the general U.S. population (5.5% of the cPAD) and all population subgroups. The most highly exposed population subgroup is children 1-2 years old, at 12% of the cPAD.

Table 3. Summary of Dietary (Food and Drinking Water) Exposure and Risk for Imidacloprid.

Population Subgroup	Acute Dietary (95 th Percentile)		Chronic Dietary	
	Dietary Exposure (mg/kg/day)	% aPAD	Dietary Exposure (mg/kg/day)	% cPAD
General U.S. Population	0.030651	38	0.004465	5.6
All Infants (<1 year old)	0.067155	84	0.007856	9.8
Children 1-2 years old	0.074054	93*	0.009365	12*
Children 3-5 years old	0.058110	73	0.007075	8.8
Children 6-12 years old	0.036004	45	0.004500	5.6
Youth 13-19 years old	0.021512	27	0.003216	4.0
Adults 20-49 years old	0.023223	29	0.004168	5.2
Adults 50-99 years old	0.023481	29	0.004308	5.4
Females 13-49 years old	0.023394	29	0.004119	5.1

*The subpopulation(s) with the highest risk estimates.

VIII. Characterization of Inputs/Outputs

The acute assessment used tolerance-level residues for most commodities, and 100% CT information for all commodities. The chronic assessment was somewhat refined, using tolerance-level residues for most commodities, and % CT information for several registered commodities. For both the acute and chronic assessment, ARs and processing factors were calculated for some commodities based on the results of previously submitted crop field trial and processing data (see Table 2). Default DEEM-FCID processing factors were used for all other registered processed commodities.

Adequate data are available for the determination of tolerance levels. As mentioned previously, BEAD provided updated estimated average % CT information for several commodities (Attachment 5). The estimates are based USDA-NASS and Private Pesticide Market Research sources for 2003 through 2013, as well as private pesticide market research and California Department of Pesticide Regulation (DPR) Pesticide Use Reporting (PUR) data for 2004 to 2012. Data values are calculated by merging data sources together, averaging by year, averaging across all years and rounding to the nearest multiple of 5 (note: data values reported as <1 represents usage less than 1%; and <2.5% represents usage less than 2.5%). In addition, for crops for which an additional average % CT value was reported for seed treatment applications only, the higher of the two values were used in the chronic assessment (see Attachment 5).

Additional refinements, such as inclusion of ARs for more commodities and % CT data could be made in order to refine the acute and chronic assessments. However, these refinements are not needed at this time.

IX. Conclusions

The acute and chronic dietary exposure and risk estimates for imidacloprid are below HED's level of concern for the general U.S. population and all population subgroups. HED is confident that the assessment does not underestimate risk to the general U.S. population or any population subgroup.

X. List of Attachments

- Attachment 1: Acute Food plus Water Residue Input File.
- Attachment 2: Acute Results File.
- Attachment 3: Chronic Food plus Water Residue Input File.
- Attachment 4: Chronic Results File.
- Attachment 5: Percent Crop Treated Data.
- Attachment 6: Acute Food Only Results File.
- Attachment 7: Chronic Food Only Results File.

cc: J. Tyler
RDI: DESAC (03-MAR-2017)
J. Tyler: S-10943: Potomac Yard 1 (PY1): (703) 305-5564: 7509P: RAB1

Attachment 1. Acute Food plus Water Residue Input File.

Filename: K:\\$\$\$\$imidacloprid\129099Acute 10-MAR-2017.R08Chemical: Imidacloprid
 RfD(Chronic): .08 mg/kg bw/day NOEL(Chronic): 8 mg/kg bw/day
 RfD(Acute): .08 mg/kg bw/day NOEL(Acute): 8 mg/kg bw/day
 Date created/last modified: 03-10-2017/15:12:43 Program ver. 3.16, 03-08-d
 Comment: DRA

EPA Code	Crop Grp	Commodity Name	Def Res (ppm)	Adj.Factors #1	Comment #2
0101050000	1AB	Beet, garden, roots	0.400000	1.000	1.000
0101050001	1AB	Beet, garden, roots-babyfood	0.400000	1.000	1.000
0101052000	1A	Beet, sugar	0.050000	1.000	1.000
0101052001	1A	Beet, sugar-babyfood	0.050000	1.000	1.000
0101053000	1A	Beet, sugar, molasses	0.300000	1.000	1.000
0101053001	1A	Beet, sugar, molasses-babyfood	0.300000	1.000	1.000
0101067000	1AB	Burdock	0.400000	1.000	1.000
0101078000	1AB	Carrot	0.400000	1.000	1.000
0101078001	1AB	Carrot-babyfood	0.400000	1.000	1.000
0101079000	1AB	Carrot, juice	0.400000	1.000	1.000
0101084000	1AB	Celeriac	0.400000	1.000	1.000
0101100000	1AB	Chicory, roots	0.400000	1.000	1.000
0101168000	1AB	Ginseng, dried	0.400000	1.000	1.000
0101190000	1AB	Horseradish	0.400000	1.000	1.000
0101250000	1AB	Parsley, turnip rooted	0.400000	1.000	1.000
0101251000	1AB	Parsnip	0.400000	1.000	1.000
0101251001	1AB	Parsnip-babyfood	0.400000	1.000	1.000
0101314000	1AB	Radish, roots	0.400000	1.000	1.000
0101316000	1AB	Radish, Oriental, roots	0.400000	1.000	1.000
0101327000	1AB	Rutabaga	0.400000	1.000	1.000
0101331000	1AB	Salsify, roots	0.400000	1.000	1.000
0101388000	1AB	Turnip, roots	0.400000	1.000	1.000
0103015000	1CD	Arrowroot, flour	0.400000	1.000	1.000
0103015001	1CD	Arrowroot, flour-babyfood	0.400000	1.000	1.000
0103017000	1CD	Artichoke, Jerusalem	0.400000	1.000	1.000
0103082000	1CD	Cassava	0.400000	1.000	1.000
0103082001	1CD	Cassava-babyfood	0.400000	1.000	1.000
0103139000	1CD	Dasheen, corm	0.400000	1.000	1.000
0103166000	1CD	Ginger	0.400000	1.000	1.000
0103166001	1CD	Ginger-babyfood	0.400000	1.000	1.000
0103167000	1CD	Ginger, dried	0.400000	1.000	1.000
0103296000	1C	Potato, chips	0.400000	1.000	1.000
0103297000	1C	Potato, dry (granules/ flakes)	0.400000	6.500	1.000
0103297001	1C	Potato, dry (granules/ flakes)-b	0.400000	6.500	1.000
0103298000	1C	Potato, flour	0.400000	6.500	1.000
0103298001	1C	Potato, flour-babyfood	0.400000	6.500	1.000
0103299000	1C	Potato, tuber, w/peel	0.400000	1.000	1.000
0103299001	1C	Potato, tuber, w/peel-babyfood	0.400000	1.000	1.000
0103300000	1C	Potato, tuber, w/o peel	0.400000	1.000	1.000
0103300001	1C	Potato, tuber, w/o peel-babyfood	0.400000	1.000	1.000
0103366000	1CD	Sweet potato	0.400000	1.000	1.000
0103366001	1CD	Sweet potato-babyfood	0.400000	1.000	1.000
0103371000	1CD	Tanier, corm	0.400000	1.000	1.000
0103387000	1CD	Turmeric	0.400000	1.000	1.000
0103406000	1CD	Yam, true	0.400000	1.000	1.000
0103407000	1CD	Yam bean	0.400000	1.000	1.000
0200051000	2	Beet, garden, tops	4.000000	1.000	1.000
0200101000	2	Chicory, tops	4.000000	1.000	1.000
0200140000	2	Dasheen, leaves	4.000000	1.000	1.000
0200315000	2	Radish, tops	4.000000	1.000	1.000
0200317000	2	Radish, Oriental, tops	4.000000	1.000	1.000
0200332000	2	Salsify, tops	4.000000	1.000	1.000
0301165000	3A	Garlic, bulb	0.150000	1.000	1.000
0301165001	3A	Garlic, bulb-babyfood	0.150000	1.000	1.000
0301237000	3A	Onion, bulb	0.150000	1.000	1.000
0301237001	3A	Onion, bulb-babyfood	0.150000	1.000	1.000
0301238000	3A	Onion, bulb, dried	0.150000	9.000	1.000
0301238001	3A	Onion, bulb, dried-babyfood	0.150000	9.000	1.000
0301338000	3A	Shallot, bulb	0.150000	1.000	1.000
0302103000	3B	Chive, fresh leaves	8.000000	1.000	1.000
0302198000	3B	Leek	2.500000	1.000	1.000
0302239000	3B	Onion, green	2.500000	1.000	1.000
0302338500	3B	Shallot, fresh leaves	2.500000	1.000	1.000

0401005000	4A	Amaranth, leafy	3.500000	1.000	1.000
0401018000	4A	Arugula	3.500000	1.000	1.000
0401104000	4A	Chrysanthemum, garland	3.500000	1.000	1.000
0401133000	4A	Cress, garden	3.500000	1.000	1.000
0401134000	4A	Cress, upland	3.500000	1.000	1.000
0401138000	4A	Dandelion, leaves	3.500000	1.000	1.000
0401150000	4A	Endive	3.500000	1.000	1.000
0401204000	4A	Lettuce, head	3.500000	1.000	1.000
0401205000	4A	Lettuce, leaf	3.500000	1.000	1.000
0401248000	4A	Parsley, leaves	3.500000	1.000	1.000
0401313000	4A	Radicchio	3.500000	1.000	1.000
0401355000	4A	Spinach	3.500000	1.000	1.000
0401355001	4A	Spinach-babyfood	3.500000	1.000	1.000
0402076000	4B	Cardoon	6.000000	1.000	1.000
0402085000	4B	Celery	6.000000	1.000	1.000
0402085001	4B	Celery-babyfood	6.000000	1.000	1.000
0402086000	4B	Celery, juice	6.000000	1.000	1.000
0402087000	4B	Celtuce	6.000000	1.000	1.000
0402152000	4B	Fennel, Florence	6.000000	1.000	1.000
0402322000	4B	Rhubarb	6.000000	1.000	1.000
0402367000	4B	Swiss chard	6.000000	1.000	1.000
0501061000	5A	Broccoli	3.500000	1.000	1.000
0501061001	5A	Broccoli-babyfood	3.500000	1.000	1.000
0501062000	5A	Broccoli, Chinese	3.500000	1.000	1.000
0501064000	5A	Brussels sprouts	3.500000	1.000	1.000
0501069000	5A	Cabbage	3.500000	1.000	1.000
0501071000	5A	Cabbage, Chinese, napa	3.500000	1.000	1.000
0501072000	5A	Cabbage, Chinese, mustard	3.500000	1.000	1.000
0501083000	5A	Cauliflower	3.500000	1.000	1.000
0501196000	5A	Kohlrabi	3.500000	1.000	1.000
0502063000	5B	Broccoli raab	3.500000	1.000	1.000
0502070000	5B	Cabbage, Chinese, bok choy	3.500000	1.000	1.000
0502117000	5B	Collards	3.500000	1.000	1.000
0502194000	5B	Kale	3.500000	1.000	1.000
0502229000	5B	Mustard greens	3.500000	1.000	1.000
0502318000	5B	Rape greens	3.500000	1.000	1.000
0502389000	5B	Turnip, greens	3.500000	1.000	1.000
0600347000	6	Soybean, seed	0.420000	1.000	1.000
0600349000	6	Soybean, soy milk	0.420000	0.250	1.000
0600349001	6	Soybean, soy milk-babyfood or in	0.420000	0.250	1.000
0600350000	6	Soybean, oil	0.420000	1.000	1.000
0600350001	6	Soybean, oil-babyfood	0.420000	1.000	1.000
0601043000	6A	Bean, snap, succulent	4.000000	1.000	1.000
0601043001	6A	Bean, snap, succulent-babyfood	4.000000	1.000	1.000
0601257000	6A	Pea, edible podded, succulent	4.000000	1.000	1.000
0601349500	6AB	Soybean, vegetable	0.300000	1.000	1.000
0602031000	6B	Bean, broad, succulent	4.000000	1.000	1.000
0602033000	6B	Bean, cowpea, succulent	4.000000	1.000	1.000
0602037000	6B	Bean, lima, succulent	4.000000	1.000	1.000
0602255000	6B	Pea, succulent	4.000000	1.000	1.000
0602255001	6B	Pea, succulent-babyfood	4.000000	1.000	1.000
0602259000	6B	Pea, pigeon, succulent	4.000000	1.000	1.000
0603030000	6C	Bean, black, seed	4.000000	1.000	1.000
0603032000	6C	Bean, broad, seed	4.000000	1.000	1.000
0603034000	6C	Bean, cowpea, seed	4.000000	1.000	1.000
0603035000	6C	Bean, great northern, seed	4.000000	1.000	1.000
0603036000	6C	Bean, kidney, seed	4.000000	1.000	1.000
0603038000	6C	Bean, lima, seed	4.000000	1.000	1.000
0603039000	6C	Bean, mung, seed	4.000000	1.000	1.000
0603040000	6C	Bean, navy, seed	4.000000	1.000	1.000
0603041000	6C	Bean, pink, seed	4.000000	1.000	1.000
0603042000	6C	Bean, pinto, seed	4.000000	1.000	1.000
0603098000	6C	Chickpea, seed	4.000000	1.000	1.000
0603098001	6C	Chickpea, seed-babyfood	4.000000	1.000	1.000
0603099000	6C	Chickpea, flour	4.000000	1.000	1.000
0603182000	6C	Guar, seed	4.000000	1.000	1.000
0603182001	6C	Guar, seed-babyfood	4.000000	1.000	1.000
0603203000	6C	Lentil, seed	4.000000	1.000	1.000
0603256000	6C	Pea, dry	4.000000	1.000	1.000
0603256001	6C	Pea, dry-babyfood	4.000000	1.000	1.000
0603258000	6C	Pea, pigeon, seed	4.000000	1.000	1.000
0603348000	6C	Soybean, flour	0.420000	1.000	1.000
0603348001	6C	Soybean, flour-babyfood	0.420000	1.000	1.000
0801374000	8A	Tomatillo	1.000000	1.000	1.000
0801375000	8A	Tomato	1.000000	1.000	1.000

0801375001	8A	Tomato-babyfood	1.000000	1.000	1.000	
0801376000	8A	Tomato, paste Full comment: CF set to 1	6.000000	1.000	1.000	CF set
0801376001	8A	Tomato, paste-babyfood Full comment: CF set to 1	6.000000	1.000	1.000	CF set
0801377000	8A	Tomato, puree Full comment: CF set to 1	3.000000	1.000	1.000	CF set
0801377001	8A	Tomato, puree-babyfood Full comment: CF set to 1	3.000000	1.000	1.000	CF set
0801378000	8A	Tomato, dried	1.000000	14.300	1.000	
0801378001	8A	Tomato, dried-babyfood	1.000000	14.300	1.000	
0801379000	8A	Tomato, juice	1.000000	1.500	1.000	
0801380000	8A	Tomato, Tree	1.000000	1.000	1.000	
0802148000	8BC	Eggplant	1.000000	1.000	1.000	
0802234000	8BC	Okra	1.000000	1.000	1.000	
0802270000	8B	Pepper, bell	1.000000	1.000	1.000	
0802270001	8B	Pepper, bell-babyfood	1.000000	1.000	1.000	
0802271000	8B	Pepper, bell, dried	1.000000	1.000	1.000	
0802271001	8B	Pepper, bell, dried-babyfood	1.000000	1.000	1.000	
0802272000	8BC	Pepper, nonbell	1.000000	1.000	1.000	
0802272001	8BC	Pepper, nonbell-babyfood	1.000000	1.000	1.000	
0802273000	8BC	Pepper, nonbell, dried	1.000000	1.000	1.000	
0901075000	9A	Cantaloupe	0.500000	1.000	1.000	
0901187000	9A	Honeydew melon	0.500000	1.000	1.000	
0901399000	9A	Watermelon	0.500000	1.000	1.000	
0901400000	9A	Watermelon, juice	0.500000	1.000	1.000	
0902021000	9B	Balsam pear	0.500000	1.000	1.000	
0902088000	9B	Chayote, fruit	0.500000	1.000	1.000	
0902102000	9B	Chinese waxgourd	0.500000	1.000	1.000	
0902135000	9B	Cucumber	0.500000	1.000	1.000	
0902308000	9B	Pumpkin	0.500000	1.000	1.000	
0902309000	9B	Pumpkin, seed	0.500000	1.000	1.000	
0902356000	9B	Squash, summer	0.500000	1.000	1.000	
0902356001	9B	Squash, summer-babyfood	0.500000	1.000	1.000	
0902357000	9B	Squash, winter	0.500000	1.000	1.000	
0902357001	9B	Squash, winter-babyfood	0.500000	1.000	1.000	
1001106000	10A	Citron	1.000000	1.000	1.000	
1001107000	10A	Citrus hybrids	1.000000	1.000	1.000	
1001108000	10A	Citrus, oil	1.000000	1.000	1.000	
1001240000	10A	Orange	0.610000	1.000	1.000	
1001241000	10A	Orange, juice	0.610000	0.030	1.000	
1001241001	10A	Orange, juice-babyfood	0.610000	0.030	1.000	
1001242000	10A	Orange, peel	0.610000	1.000	1.000	
1001369000	10A	Tangerine	1.000000	1.000	1.000	
1001370000	10A	Tangerine, juice	1.000000	2.300	1.000	
1002197000	10B	Kumquat	1.000000	1.000	1.000	
1002199000	10B	Lemon	1.000000	1.000	1.000	
1002200000	10B	Lemon, juice	1.000000	2.000	1.000	
1002200001	10B	Lemon, juice-babyfood	1.000000	2.000	1.000	
1002201000	10B	Lemon, peel	1.000000	1.000	1.000	
1002206000	10B	Lime	1.000000	1.000	1.000	
1002207000	10B	Lime, juice	1.000000	2.000	1.000	
1002207001	10B	Lime, juice-babyfood	1.000000	2.000	1.000	
1003180000	10C	Grapefruit	1.000000	1.000	1.000	
1003181000	10C	Grapefruit, juice	1.000000	2.100	1.000	
1003307000	10C	Pummelo	1.000000	1.000	1.000	
1100007000	11	Apple, fruit with peel	0.438000	1.000	1.000	
1100008000	11	Apple, peeled fruit	0.438000	1.000	1.000	
1100008001	11	Apple, peeled fruit-babyfood	0.438000	1.000	1.000	
1100009000	11	Apple, dried	0.093000	8.000	1.000	
1100009001	11	Apple, dried-babyfood	0.093000	8.000	1.000	
1100010000	11	Apple, juice	0.438000	0.770	1.000	
1100010001	11	Apple, juice-babyfood	0.438000	0.770	1.000	
1100011000	11	Apple, sauce	0.438000	1.000	1.000	
1100011001	11	Apple, sauce-babyfood	0.438000	1.000	1.000	
1100129000	11	Crabapple	0.600000	1.000	1.000	
1100173500	11	Goji berry	1.000000	1.000	1.000	
1100210000	11	Loquat	0.600000	1.000	1.000	
1100266000	11	Pear	0.600000	1.000	1.000	
1100266001	11	Pear-babyfood	0.600000	1.000	1.000	
1100267000	11	Pear, dried	0.600000	6.250	1.000	
1100268000	11	Pear, juice	0.600000	1.000	1.000	
1100268001	11	Pear, juice-babyfood	0.600000	1.000	1.000	
1100310000	11	Quince	0.600000	1.000	1.000	
1201090000	12A	Cherry	3.000000	1.000	1.000	

1201090001	12A	Cherry-babyfood	3.000000	1.000	1.000
1201091000	12A	Cherry, juice	3.000000	1.500	1.000
1201091001	12A	Cherry, juice-babyfood	3.000000	1.500	1.000
1202012000	12B	Apricot	3.000000	1.000	1.000
1202012001	12B	Apricot-babyfood	3.000000	1.000	1.000
1202013000	12B	Apricot, dried	3.000000	6.000	1.000
1202014000	12B	Apricot, juice	3.000000	1.000	1.000
1202014001	12B	Apricot, juice-babyfood	3.000000	1.000	1.000
1202230000	12B	Nectarine	3.000000	1.000	1.000
1202260000	12B	Peach	3.000000	1.000	1.000
1202260001	12B	Peach-babyfood	3.000000	1.000	1.000
1202261000	12B	Peach, dried	3.000000	7.000	1.000
1202261001	12B	Peach, dried-babyfood	3.000000	7.000	1.000
1202262000	12B	Peach, juice	3.000000	1.000	1.000
1202262001	12B	Peach, juice-babyfood	3.000000	1.000	1.000
1203285000	12C	Plum	3.000000	1.000	1.000
1203285001	12C	Plum-babyfood	3.000000	1.000	1.000
1203286000	12C	Plum, prune, fresh	3.000000	1.000	1.000
1203286001	12C	Plum, prune, fresh-babyfood	3.000000	1.000	1.000
1203287000	12C	Plum, prune, dried	3.000000	5.000	1.000
1203287001	12C	Plum, prune, dried-babyfood	3.000000	5.000	1.000
1203288000	12C	Plum, prune, juice	3.000000	1.400	1.000
1203288001	12C	Plum, prune, juice-babyfood	3.000000	1.400	1.000
1301055000	13A	Blackberry	2.500000	1.000	1.000
1301056000	13A	Blackberry, juice	2.500000	1.000	1.000
1301056001	13A	Blackberry, juice-babyfood	2.500000	1.000	1.000
1301058000	13A	Boysenberry	2.500000	1.000	1.000
1301208000	13A	Loganberry	2.500000	1.000	1.000
1301320000	13A	Raspberry	2.500000	1.000	1.000
1301320001	13A	Raspberry-babyfood	2.500000	1.000	1.000
1301321000	13A	Raspberry, juice	2.500000	1.000	1.000
1301321001	13A	Raspberry, juice-babyfood	2.500000	1.000	1.000
1302057000	13B	Blueberry	3.500000	1.000	1.000
1302057001	13B	Blueberry-babyfood	3.500000	1.000	1.000
1302136000	13B	Currant	3.500000	1.000	1.000
1302137000	13B	Currant, dried	3.500000	1.000	1.000
1302149000	13B	Elderberry	3.500000	1.000	1.000
1302174000	13B	Gooseberry	3.500000	1.000	1.000
1302191000	13B	Huckleberry	3.500000	1.000	1.000
1304175000	13D	Grape	0.610000	1.000	1.000
1304176000	13D	Grape, juice	0.610000	1.150	1.000
1304176001	13D	Grape, juice-babyfood	0.610000	1.150	1.000
1307130000	13G	Cranberry	0.050000	1.000	1.000
1307130001	13G	Cranberry-babyfood	0.050000	1.000	1.000
1307131000	13G	Cranberry, dried	0.050000	1.000	1.000
1307132000	13G	Cranberry, juice	0.050000	1.100	1.000
1307132001	13G	Cranberry, juice-babyfood	0.050000	1.100	1.000
1307359000	13G	Strawberry	0.500000	1.000	1.000
1307359001	13G	Strawberry-babyfood	0.500000	1.000	1.000
1307360000	13G	Strawberry, juice	0.500000	1.000	1.000
1307360001	13G	Strawberry, juice-babyfood	0.500000	1.000	1.000
1400003000	14	Almond	0.050000	1.000	1.000
1400003001	14	Almond-babyfood	0.050000	1.000	1.000
1400004000	14	Almond, oil	0.050000	1.000	1.000
1400004001	14	Almond, oil-babyfood	0.050000	1.000	1.000
1400059000	14	Brazil nut	0.050000	1.000	1.000
1400068000	14	Butternut	0.050000	1.000	1.000
1400081000	14	Cashew	0.050000	1.000	1.000
1400092000	14	Chestnut	0.050000	1.000	1.000
1400155000	14	Hazelnut	0.050000	1.000	1.000
1400156000	14	Hazelnut, oil	0.050000	1.000	1.000
1400185000	14	Hickory nut	0.050000	1.000	1.000
1400213000	14	Macadamia nut	0.050000	1.000	1.000
1400269000	14	Pecan	0.050000	1.000	1.000
1400278000	14	Pine nut	0.050000	1.000	1.000
1400282000	14	Pistachio	0.050000	1.000	1.000
1400391000	14	Walnut	0.050000	1.000	1.000
1500025000	15	Barley, pearled barley	0.050000	1.000	1.000
1500025001	15	Barley, pearled barley-babyfood	0.050000	1.000	1.000
1500026000	15	Barley, flour	0.050000	1.000	1.000
1500026001	15	Barley, flour-babyfood	0.050000	1.000	1.000
1500027000	15	Barley, bran	0.050000	1.000	1.000
1500065000	15	Buckwheat	0.050000	1.000	1.000
1500066000	15	Buckwheat, flour	0.050000	1.000	1.000
1500120000	15	Corn, field, flour	0.050000	1.000	1.000

1500120001	15	Corn, field, flour-babyfood	0.050000	1.000	1.000	
1500121000	15	Corn, field, meal	0.050000	1.000	1.000	
1500121001	15	Corn, field, meal-babyfood	0.050000	1.000	1.000	
1500122000	15	Corn, field, bran	0.050000	1.000	1.000	
1500123000	15	Corn, field, starch	0.050000	1.000	1.000	
1500123001	15	Corn, field, starch-babyfood	0.050000	1.000	1.000	
1500124000	15	Corn, field, syrup	0.050000	1.500	1.000	
1500124001	15	Corn, field, syrup-babyfood	0.050000	1.500	1.000	
1500125000	15	Corn, field, oil	0.050000	1.000	1.000	
1500125001	15	Corn, field, oil-babyfood	0.050000	1.000	1.000	
1500126000	15	Corn, pop	0.050000	1.000	1.000	
1500127000	15	Corn, sweet	0.050000	1.000	1.000	
1500127001	15	Corn, sweet-babyfood	0.050000	1.000	1.000	
1500226000	15	Millet, grain	0.050000	1.000	1.000	
1500231000	15	Oat, bran	0.050000	1.000	1.000	
1500232000	15	Oat, flour	0.050000	1.000	1.000	
1500232001	15	Oat, flour-babyfood	0.050000	1.000	1.000	
1500233000	15	Oat, groats/rolled oats	0.050000	1.000	1.000	
1500233001	15	Oat, groats/rolled oats-babyfood	0.050000	1.000	1.000	
1500323000	15	Rice, white	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1500323001	15	Rice, white-babyfood	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1500324000	15	Rice, brown	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1500324001	15	Rice, brown-babyfood	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1500325000	15	Rice, flour	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1500325001	15	Rice, flour-babyfood	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1500326000	15	Rice, bran	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1500326001	15	Rice, bran-babyfood	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1500328000	15	Rye, grain	0.050000	1.000	1.000	
1500329000	15	Rye, flour	0.050000	1.000	1.000	
1500344000	15	Sorghum, grain	0.050000	1.000	1.000	
1500345000	15	Sorghum, syrup	0.050000	1.000	1.000	
1500381000	15	Triticale, flour	0.050000	1.000	1.000	
1500381001	15	Triticale, flour-babyfood	0.050000	1.000	1.000	
1500401000	15	Wheat, grain	0.050000	1.000	1.000	
1500401001	15	Wheat, grain-babyfood	0.050000	1.000	1.000	
1500402000	15	Wheat, flour	0.050000	1.000	1.000	
1500402001	15	Wheat, flour-babyfood	0.050000	1.000	1.000	
1500403000	15	Wheat, germ	0.050000	1.000	1.000	
1500404000	15	Wheat, bran	0.050000	1.000	1.000	
1500405000	15	Wild rice	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1901028000	19A	Basil, fresh leaves	8.000000	1.000	1.000	
1901028001	19A	Basil, fresh leaves-babyfood	8.000000	1.000	1.000	
1901029000	19A	Basil, dried leaves	48.000000	1.000	1.000	
1901029001	19A	Basil, dried leaves-babyfood	48.000000	1.000	1.000	
1901102500	19A	Chive, dried leaves	48.000000	1.000	1.000	
1901118000	19A	Cilantro, leaves	8.000000	1.000	1.000	
1901118001	19A	Cilantro, leaves-babyfood	8.000000	1.000	1.000	
1901144000	19A	Dillweed	8.000000	1.000	1.000	
1901184000	19A	Herbs, other	48.000000	1.000	1.000	
1901184001	19A	Herbs, other-babyfood	48.000000	1.000	1.000	
1901202000	19A	Lemongrass	8.000000	1.000	1.000	
1901220000	19A	Marjoram	8.000000	1.000	1.000	
1901220001	19A	Marjoram-babyfood	8.000000	1.000	1.000	
1901249000	19A	Parsley, dried leaves	48.000000	1.000	1.000	
1901249001	19A	Parsley, dried leaves-babyfood	48.000000	1.000	1.000	
1901334000	19A	Savory	8.000000	1.000	1.000	
2001163000	20A	Flax seed, oil	0.050000	1.000	1.000	
2001319000	20A	Rapeseed, oil	0.050000	1.000	1.000	
2001319001	20A	Rapeseed, oil-babyfood	0.050000	1.000	1.000	
2001336000	20A	Sesame, seed	0.050000	1.000	1.000	
2001336001	20A	Sesame, seed-babyfood	0.050000	1.000	1.000	
2001337000	20A	Sesame, oil	0.050000	1.000	1.000	
2001337001	20A	Sesame, oil-babyfood	0.050000	1.000	1.000	
2002330000	20B	Safflower, oil	0.050000	1.000	1.000	
2002330001	20B	Safflower, oil-babyfood	0.050000	1.000	1.000	
2002364000	20B	Sunflower, seed	0.050000	1.000	1.000	

2002365000	20B	Sunflower, oil	0.050000	1.000	1.000
2002365001	20B	Sunflower, oil-babyfood	0.050000	1.000	1.000
2003114001	20C	Coconut, oil-babyfood	0.050000	1.000	1.000
2003128000	20C	Cottonseed, oil	6.000000	1.000	1.000
2003128001	20C	Cottonseed, oil-babyfood	6.000000	1.000	1.000
3100044000	31	Beef, meat	0.300000	1.000	1.000
3100044001	31	Beef, meat-babyfood	0.300000	1.000	1.000
3100045000	31	Beef, meat, dried	0.300000	1.920	1.000
3100046000	31	Beef, meat byproducts	0.300000	1.000	1.000
3100046001	31	Beef, meat byproducts-babyfood	0.300000	1.000	1.000
3100047000	31	Beef, fat	0.300000	1.000	1.000
3100047001	31	Beef, fat-babyfood	0.300000	1.000	1.000
3100048000	31	Beef, kidney	0.300000	1.000	1.000
3100049000	31	Beef, liver	0.300000	1.000	1.000
3100049001	31	Beef, liver-babyfood	0.300000	1.000	1.000
3200169000	32	Goat, meat	0.300000	1.000	1.000
3200170000	32	Goat, meat byproducts	0.300000	1.000	1.000
3200171000	32	Goat, fat	0.300000	1.000	1.000
3200172000	32	Goat, kidney	0.300000	1.000	1.000
3200173000	32	Goat, liver	0.300000	1.000	1.000
3300189000	33	Horse, meat	0.300000	1.000	1.000
3400290000	34	Pork, meat	0.300000	1.000	1.000
3400290001	34	Pork, meat-babyfood	0.300000	1.000	1.000
3400291000	34	Pork, skin	0.300000	1.000	1.000
3400292000	34	Pork, meat byproducts	0.300000	1.000	1.000
3400292001	34	Pork, meat byproducts-babyfood	0.300000	1.000	1.000
3400293000	34	Pork, fat	0.300000	1.000	1.000
3400293001	34	Pork, fat-babyfood	0.300000	1.000	1.000
3400294000	34	Pork, kidney	0.300000	1.000	1.000
3400295000	34	Pork, liver	0.300000	1.000	1.000
3500339000	35	Sheep, meat	0.300000	1.000	1.000
3500339001	35	Sheep, meat-babyfood	0.300000	1.000	1.000
3500340000	35	Sheep, meat byproducts	0.300000	1.000	1.000
3500341000	35	Sheep, fat	0.300000	1.000	1.000
3500341001	35	Sheep, fat-babyfood	0.300000	1.000	1.000
3500342000	35	Sheep, kidney	0.300000	1.000	1.000
3500343000	35	Sheep, liver	0.300000	1.000	1.000
3600222000	36	Milk, fat	0.100000	1.000	1.000
3600222001	36	Milk, fat-baby food/infant formu	0.100000	1.000	1.000
3600223000	36	Milk, nonfat solids	0.100000	1.000	1.000
3600223001	36	Milk, nonfat solids-baby food/in	0.100000	1.000	1.000
3600224000	36	Milk, water	0.100000	1.000	1.000
3600224001	36	Milk, water-babyfood/infant form	0.100000	1.000	1.000
3600225001	36	Milk, sugar (lactose)-baby food/	0.100000	1.000	1.000
3800221000	38	Meat, game	0.300000	1.000	1.000
3900312000	39	Rabbit, meat	0.300000	1.000	1.000
4000093000	40	Chicken, meat	0.050000	1.000	1.000
4000093001	40	Chicken, meat-babyfood	0.050000	1.000	1.000
4000094000	40	Chicken, liver	0.050000	1.000	1.000
4000095000	40	Chicken, meat byproducts	0.050000	1.000	1.000
4000095001	40	Chicken, meat byproducts-babyfoo	0.050000	1.000	1.000
4000096000	40	Chicken, fat	0.050000	1.000	1.000
4000096001	40	Chicken, fat-babyfood	0.050000	1.000	1.000
4000097000	40	Chicken, skin	0.050000	1.000	1.000
4000097001	40	Chicken, skin-babyfood	0.050000	1.000	1.000
5000382000	50	Turkey, meat	0.050000	1.000	1.000
5000382001	50	Turkey, meat-babyfood	0.050000	1.000	1.000
5000383000	50	Turkey, liver	0.050000	1.000	1.000
5000383001	50	Turkey, liver-babyfood	0.050000	1.000	1.000
5000384000	50	Turkey, meat byproducts	0.050000	1.000	1.000
5000384001	50	Turkey, meat byproducts-babyfood	0.050000	1.000	1.000
5000385000	50	Turkey, fat	0.050000	1.000	1.000
5000385001	50	Turkey, fat-babyfood	0.050000	1.000	1.000
5000386000	50	Turkey, skin	0.050000	1.000	1.000
5000386001	50	Turkey, skin-babyfood	0.050000	1.000	1.000
6000301000	60	Poultry, other, meat	0.050000	1.000	1.000
6000302000	60	Poultry, other, liver	0.050000	1.000	1.000
6000303000	60	Poultry, other, meat byproducts	0.050000	1.000	1.000
6000304000	60	Poultry, other, fat	0.050000	1.000	1.000
6000305000	60	Poultry, other, skin	0.050000	1.000	1.000
7000145000	70	Egg, whole	0.020000	1.000	1.000
7000145001	70	Egg, whole-babyfood	0.020000	1.000	1.000
7000146000	70	Egg, white	0.020000	1.000	1.000
7000146001	70	Egg, white (solids)-babyfood	0.020000	1.000	1.000
7000147000	70	Egg, yolk	0.020000	1.000	1.000

7000147001	70	Egg, yolk-babyfood	0.020000	1.000	1.000
8000157000	80	Fish-freshwater finfish	0.050000	1.000	1.000
8000158000	80	Fish-freshwater finfish, farm ra	0.050000	1.000	1.000
8000159000	80	Fish-saltwater finfish, tuna	0.050000	1.000	1.000
8000160000	80	Fish-saltwater finfish, other	0.050000	1.000	1.000
8000161000	80	Fish-shellfish, crustacean	0.050000	1.000	1.000
8000162000	80	Fish-shellfish, mollusc	0.050000	1.000	1.000
8601000000	86A	Water, direct, all sources	0.092000	1.000	1.000
		Full comment: 92 ppb. WI-corn ground water scenario.			92 ppb
8602000000	86B	Water, indirect, all sources	0.092000	1.000	1.000
		Full comment: 92 ppb. WI-corn ground water scenario.			92 ppb
9500001000	O	Acerola	1.000000	1.000	1.000
9500016000	O	Artichoke, globe	2.500000	1.000	1.000
9500019500	O	Atemoya	0.300000	1.000	1.000
9500020000	O	Avocado	1.000000	1.000	1.000
9500023000	O	Banana	0.500000	1.000	1.000
9500023001	O	Banana-babyfood	0.500000	1.000	1.000
9500024000	O	Banana, dried	0.500000	3.900	1.000
9500024001	O	Banana, dried-babyfood	0.500000	3.900	1.000
9500074000	O	Canistel	1.000000	1.000	1.000
9500089000	O	Cherimoya	0.300000	1.000	1.000
9500111000	O	Coconut, meat	0.050000	1.000	1.000
9500111001	O	Coconut, meat-babyfood	0.050000	1.000	1.000
9500112000	O	Coconut, dried	0.050000	2.100	1.000
9500113000	O	Coconut, milk	0.050000	1.000	1.000
9500114000	O	Coconut, oil	0.050000	1.000	1.000
9500115000	O	Coffee, roasted bean	1.000000	1.000	1.000
9500116000	O	Coffee, instant	1.000000	1.000	1.000
9500151000	O	Feijoa	1.000000	1.000	1.000
9500177000	O	Grape, leaves	0.610000	1.000	1.000
9500178000	O	Grape, raisin	0.610000	1.950	1.000
9500183000	O	Guava	1.000000	1.000	1.000
9500183001	O	Guava-babyfood	1.000000	1.000	1.000
9500188000	O	Hop	6.000000	1.000	1.000
9500209000	O	Longan	3.000000	1.000	1.000
9500211000	O	Lychee	3.000000	1.000	1.000
9500212000	O	Lychee, dried	3.000000	1.850	1.000
9500215000	O	Mango	1.000000	1.000	1.000
9500215001	O	Mango-babyfood	1.000000	1.000	1.000
9500216000	O	Mango, dried	1.000000	1.000	1.000
9500217000	O	Mango, juice	1.000000	1.000	1.000
9500217001	O	Mango, juice-babyfood	1.000000	1.000	1.000
9500235000	O	Olive	2.000000	1.000	1.000
9500236000	O	Olive, oil	2.000000	1.000	1.000
9500245000	O	Papaya	1.000000	1.000	1.000
9500245001	O	Papaya-babyfood	1.000000	1.000	1.000
9500246000	O	Papaya, dried	1.000000	1.800	1.000
9500247000	O	Papaya, juice	1.000000	1.500	1.000
9500252000	O	Passionfruit	1.000000	1.000	1.000
9500252001	O	Passionfruit-babyfood	1.000000	1.000	1.000
9500253000	O	Passionfruit, juice	1.000000	1.000	1.000
9500253001	O	Passionfruit, juice-babyfood	1.000000	1.000	1.000
9500263000	O	Peanut	0.450000	1.000	1.000
9500264000	O	Peanut, butter	0.450000	1.890	1.000
9500265000	O	Peanut, oil	0.450000	1.000	1.000
9500277000	O	Persimmon	3.000000	1.000	1.000
9500283000	O	Plantain	0.500000	1.000	1.000
9500284000	O	Plantain, dried	0.500000	3.900	1.000
9500289000	O	Pomegranate	0.900000	1.000	1.000
9500333000	O	Sapote, Mamey	1.000000	1.000	1.000
9500346000	O	Soursop	0.300000	1.000	1.000
9500351000	O	Spanish lime	3.000000	1.000	1.000
9500358000	O	Starfruit	1.000000	1.000	1.000
9500361000	O	Sugar apple	0.300000	1.000	1.000
9500362000	O	Sugarcane, sugar	0.150000	1.000	1.000
9500362001	O	Sugarcane, sugar-babyfood	0.150000	1.000	1.000
9500363000	O	Sugarcane, molasses	50.000000	1.000	1.000
9500363001	O	Sugarcane, molasses-babyfood	50.000000	1.000	1.000
9500372000	O	Tea, dried	50.000000	1.000	1.000
9500373000	O	Tea, instant	50.000000	1.000	1.000
9500398000	O	Watercress	3.500000	1.000	1.000

Attachment 2. Acute Results File.

US EPA Ver. 3.18, 03-08-d
DEEM-FCID ACUTE Analysis for IMIDACLOPRID NHANES 2003-2008 2-Day
Residue file: 129099Acute 10-MAR-2017.R08 Adjustment factor #2 NOT used.
Analysis Date: 03-10-2017/15:29:13 Residue file dated: 03-10-2017/15:12:43
NOEL (Acute) = 8.000000 mg/kg body-wt/day
RAC/FF intake summed over 24 hours
Run Comment: "DRA"
=====

Summary calculations--per capita:

--- 95th Percentile---			--- 99th Percentile---			---99.9th Percentile---		
Exposure	% aRfD	MOE	Exposure	% aRfD	MOE	Exposure	% aRfD	MOE
Total US Population:								
0.030651	38.31	261	0.053769	67.21	148	0.094215	117.77	84
All Infants:								
0.067155	83.94	119	0.104321	130.40	76	0.152630	190.79	52
Children 1-2:								
0.074054	92.57	108	0.106164	132.71	75	0.138484	173.10	57
Children 3-5:								
0.058110	72.64	137	0.084792	105.99	94	0.131678	164.60	60
Children 6-12:								
0.036004	45.01	222	0.051129	63.91	156	0.080524	100.65	99
Youth 13-19:								
0.021512	26.89	371	0.032626	40.78	245	0.049020	61.28	163
Adults 20-49:								
0.023223	29.03	344	0.033127	41.41	241	0.053595	66.99	149
Adults 50-99:								
0.023481	29.35	340	0.034857	43.57	229	0.047727	59.66	167
Female 13-49:								
0.023394	29.24	341	0.033668	42.08	237	0.055204	69.01	144

Attachment 3. Chronic Food plus Water Residue Input File.

Filename: K:\\$\$\$\$imidacloprid\129099Chronic 10-MAR-2017.R08

Chemical: Imidacloprid

RfD(Chronic): .08 mg/kg bw/day NOEL(Chronic): 8 mg/kg bw/day

RfD(Acute): .08 mg/kg bw/day NOEL(Acute): 8 mg/kg bw/day

Date created/last modified: 03-10-2017/15:21:26 Program ver. 3.16, 03-08-d

Comment: DRA

EPA Code	Crop Grp	Commodity Name	Def Res (ppm)	Adj.Factors #1	Adj.Factors #2	Comment
0101050000	1AB	Beet, garden, roots	0.400000	1.000	1.000	
0101050001	1AB	Beet, garden, roots-babyfood	0.400000	1.000	1.000	
0101052000	1A	Beet, sugar	0.050000	1.000	0.025	<2.5% Full comment: <2.5% CT
0101052001	1A	Beet, sugar-babyfood	0.050000	1.000	0.025	<2.5% Full comment: <2.5% CT
0101053000	1A	Beet, sugar, molasses	0.300000	1.000	0.025	<2.5% Full comment: <2.5% CT
0101053001	1A	Beet, sugar, molasses-babyfood	0.300000	1.000	0.025	<2.5% Full comment: <2.5% CT
0101067000	1AB	Burdock	0.400000	1.000	1.000	
0101078000	1AB	Carrot	0.400000	1.000	0.150	15% CT
0101078001	1AB	Carrot-babyfood	0.400000	1.000	0.150	15% CT
0101079000	1AB	Carrot, juice	0.400000	1.000	0.150	15% CT
0101084000	1AB	Celeriac	0.400000	1.000	1.000	
0101100000	1AB	Chicory, roots	0.400000	1.000	0.100	10% CT
0101168000	1AB	Ginseng, dried	0.400000	1.000	1.000	
0101190000	1AB	Horseradish	0.400000	1.000	1.000	
0101250000	1AB	Parsley, turnip rooted	0.400000	1.000	1.000	
0101251000	1AB	Parsnip	0.400000	1.000	1.000	
0101251001	1AB	Parsnip-babyfood	0.400000	1.000	1.000	
0101314000	1AB	Radish, roots	0.400000	1.000	1.000	
0101316000	1AB	Radish, Oriental, roots	0.400000	1.000	1.000	
0101327000	1AB	Rutabaga	0.400000	1.000	1.000	
0101331000	1AB	Salsify, roots	0.400000	1.000	1.000	
0101388000	1AB	Turnip, roots	0.400000	1.000	1.000	
0103015000	1CD	Arrowroot, flour	0.400000	1.000	1.000	
0103015001	1CD	Arrowroot, flour-babyfood	0.400000	1.000	1.000	
0103017000	1CD	Artichoke, Jerusalem	0.400000	1.000	0.150	15% CT
0103082000	1CD	Cassava	0.400000	1.000	1.000	
0103082001	1CD	Cassava-babyfood	0.400000	1.000	1.000	
0103139000	1CD	Dasheen, corm	0.400000	1.000	1.000	
0103166000	1CD	Ginger	0.400000	1.000	1.000	
0103166001	1CD	Ginger-babyfood	0.400000	1.000	1.000	
0103167000	1CD	Ginger, dried	0.400000	1.000	1.000	
0103296000	1C	Potato, chips	0.400000	1.000	0.350	35% CT
0103297000	1C	Potato, dry (granules/ flakes)	0.400000	6.500	0.350	35% CT
0103297001	1C	Potato, dry (granules/ flakes)-b	0.400000	6.500	0.350	35% CT
0103298000	1C	Potato, flour	0.400000	6.500	0.350	35% CT
0103298001	1C	Potato, flour-babyfood	0.400000	6.500	0.350	35% CT
0103299000	1C	Potato, tuber, w/peel	0.400000	1.000	0.350	35% CT
0103299001	1C	Potato, tuber, w/peel-babyfood	0.400000	1.000	0.350	35% CT
0103300000	1C	Potato, tuber, w/o peel	0.400000	1.000	0.350	35% CT
0103300001	1C	Potato, tuber, w/o peel-babyfood	0.400000	1.000	0.350	35% CT
0103366000	1CD	Sweet potato	0.400000	1.000	1.000	
0103366001	1CD	Sweet potato-babyfood	0.400000	1.000	1.000	
0103371000	1CD	Tanier, corm	0.400000	1.000	1.000	
0103387000	1CD	Turmeric	0.400000	1.000	1.000	
0103406000	1CD	Yam, true	0.400000	1.000	1.000	
0103407000	1CD	Yam bean	0.400000	1.000	1.000	
0200051000	2	Beet, garden, tops	4.000000	1.000	1.000	
0200101000	2	Chicory, tops	4.000000	1.000	0.100	10% CT
0200140000	2	Dasheen, leaves	4.000000	1.000	1.000	
0200315000	2	Radish, tops	4.000000	1.000	1.000	
0200317000	2	Radish, Oriental, tops	4.000000	1.000	1.000	
0200332000	2	Salsify, tops	4.000000	1.000	1.000	
0301165000	3A	Garlic, bulb	0.150000	1.000	0.050	5% CT
0301165001	3A	Garlic, bulb-babyfood	0.150000	1.000	0.050	5% CT
0301237000	3A	Onion, bulb	0.150000	1.000	0.025	<2.5% Full comment: <2.5% CT
0301237001	3A	Onion, bulb-babyfood	0.150000	1.000	0.025	<2.5%

		Full comment: <2.5% CT				
0301238000	3A	Onion, bulb, dried	0.150000	9.000	0.025	<2.5%
		Full comment: <2.5% CT				
0301238001	3A	Onion, bulb, dried-babyfood	0.150000	9.000	0.025	<2.5%
		Full comment: <2.5% CT				
0301338000	3A	Shallot, bulb	0.150000	1.000	1.000	
0302103000	3B	Chive, fresh leaves	8.000000	1.000	1.000	
0302198000	3B	Leek	2.500000	1.000	1.000	
0302239000	3B	Onion, green	2.500000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
0302338500	3B	Shallot, fresh leaves	2.500000	1.000	1.000	
0401005000	4A	Amaranth, leafy	3.500000	1.000	1.000	
0401018000	4A	Arugula	3.500000	1.000	1.000	
0401104000	4A	Chrysanthemum, garland	3.500000	1.000	1.000	
0401133000	4A	Cress, garden	3.500000	1.000	1.000	
0401134000	4A	Cress, upland	3.500000	1.000	1.000	
0401138000	4A	Dandelion, leaves	3.500000	1.000	1.000	
0401150000	4A	Endive	3.500000	1.000	1.000	
0401204000	4A	Lettuce, head	3.500000	1.000	0.650	65% CT
0401205000	4A	Lettuce, leaf	3.500000	1.000	0.650	65% CT
0401248000	4A	Parsley, leaves	3.500000	1.000	1.000	
0401313000	4A	Radicchio	3.500000	1.000	1.000	
0401355000	4A	Spinach	3.500000	1.000	0.250	25% CT
0401355001	4A	Spinach-babyfood	3.500000	1.000	0.250	25% CT
0402076000	4B	Cardoon	6.000000	1.000	1.000	
0402085000	4B	Celery	6.000000	1.000	0.100	10% CT
0402085001	4B	Celery-babyfood	6.000000	1.000	0.100	10% CT
0402086000	4B	Celery, juice	6.000000	1.000	0.100	10% CT
0402087000	4B	Celtuce	6.000000	1.000	1.000	
0402152000	4B	Fennel, Florence	6.000000	1.000	1.000	
0402322000	4B	Rhubarb	6.000000	1.000	1.000	
0402367000	4B	Swiss chard	6.000000	1.000	1.000	
0501061000	5A	Broccoli	1.060000	1.000	0.650	65% CT
0501061001	5A	Broccoli-babyfood	1.060000	1.000	0.650	65% CT
0501062000	5A	Broccoli, Chinese	3.500000	1.000	1.000	
0501064000	5A	Brussels sprouts	3.500000	1.000	0.500	50% CT
0501069000	5A	Cabbage	3.500000	1.000	0.300	30% CT
0501071000	5A	Cabbage, Chinese, napa	3.500000	1.000	0.300	30% CT
0501072000	5A	Cabbage, Chinese, mustard	3.500000	1.000	0.300	30% CT
0501083000	5A	Cauliflower	3.500000	1.000	0.600	60% CT
0501196000	5A	Kohlrabi	3.500000	1.000	1.000	
0502063000	5B	Broccoli raab	3.500000	1.000	1.000	
0502070000	5B	Cabbage, Chinese, bok choy	3.500000	1.000	0.300	30% CT
0502117000	5B	Collards	3.500000	1.000	1.000	
0502194000	5B	Kale	3.500000	1.000	1.000	
0502229000	5B	Mustard greens	3.500000	1.000	1.000	
0502318000	5B	Rape greens	3.500000	1.000	1.000	
0502389000	5B	Turnip, greens	3.500000	1.000	1.000	
0600347000	6	Soybean, seed	0.420000	1.000	0.100	10% CT
0600349000	6	Soybean, soy milk	0.420000	0.250	0.100	10% CT
0600349001	6	Soybean, soy milk-babyfood or in	0.420000	0.250	0.100	10% CT
0600350000	6	Soybean, oil	0.420000	1.000	0.100	10% CT
0600350001	6	Soybean, oil-babyfood	0.420000	1.000	0.100	10% CT
0601043000	6A	Bean, snap, succulent	4.000000	1.000	0.050	5% CT
0601043001	6A	Bean, snap, succulent-babyfood	4.000000	1.000	0.050	5% CT
0601257000	6A	Pea, edible podded, succulent	4.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
0601349500	6AB	Soybean, vegetable	0.300000	1.000	1.000	
0602031000	6B	Bean, broad, succulent	4.000000	1.000	0.050	5% CT
0602033000	6B	Bean, cowpea, succulent	4.000000	1.000	0.050	5% CT
0602037000	6B	Bean, lima, succulent	4.000000	1.000	0.050	5% CT
0602255000	6B	Pea, succulent	4.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
0602255001	6B	Pea, succulent-babyfood	4.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
0602259000	6B	Pea, pigeon, succulent	4.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
0603030000	6C	Bean, black, seed	4.000000	1.000	0.010	<1% CT
0603032000	6C	Bean, broad, seed	4.000000	1.000	0.010	<1% CT
0603034000	6C	Bean, cowpea, seed	4.000000	1.000	0.010	<1% CT
0603035000	6C	Bean, great northern, seed	4.000000	1.000	0.010	<1% CT
0603036000	6C	Bean, kidney, seed	4.000000	1.000	0.010	<1% CT
0603038000	6C	Bean, lima, seed	4.000000	1.000	0.010	<1% CT
0603039000	6C	Bean, mung, seed	4.000000	1.000	0.010	<1% CT
0603040000	6C	Bean, navy, seed	4.000000	1.000	0.010	<1% CT

0603041000	6C	Bean, pink, seed	4.000000	1.000	0.010	<1% CT
0603042000	6C	Bean, pinto, seed	4.000000	1.000	0.010	<1% CT
0603098000	6C	Chickpea, seed	4.000000	1.000	0.010	<1% CT
0603098001	6C	Chickpea, seed-babyfood	4.000000	1.000	0.010	<1% CT
0603099000	6C	Chickpea, flour	4.000000	1.000	0.010	<1% CT
0603182000	6C	Guar, seed	4.000000	1.000	0.010	<1% CT
0603182001	6C	Guar, seed-babyfood	4.000000	1.000	0.010	<1% CT
0603203000	6C	Lentil, seed	4.000000	1.000	0.010	<1% CT
0603256000	6C	Pea, dry	4.000000	1.000	0.010	<1% CT
0603256001	6C	Pea, dry-babyfood	4.000000	1.000	0.010	<1% CT
0603258000	6C	Pea, pigeon, seed	4.000000	1.000	0.010	<1% CT
0603348000	6C	Soybean, flour	0.420000	1.000	0.100	10% CT
0603348001	6C	Soybean, flour-babyfood	0.420000	1.000	0.100	10% CT
0801374000	8A	Tomatillo	1.000000	1.000	1.000	
0801375000	8A	Tomato	0.270000	1.000	0.300	30% CT
0801375001	8A	Tomato-babyfood	0.270000	1.000	0.300	30% CT
0801376000	8A	Tomato, paste	0.270000	5.100	0.300	CF set
		Full comment: CF set to 1; 30% CT				
0801376001	8A	Tomato, paste-babyfood	0.270000	5.100	0.300	CF set
		Full comment: CF set to 1; 30% CT				
0801377000	8A	Tomato, puree	0.270000	2.700	0.300	CF set
		Full comment: CF set to 1; 30% CT				
0801377001	8A	Tomato, puree-babyfood	0.270000	2.700	0.300	CF set
		Full comment: CF set to 1; 30% CT				
0801378000	8A	Tomato, dried	0.270000	3.600	0.300	30% CT
0801378001	8A	Tomato, dried-babyfood	0.270000	3.600	0.300	30% CT
0801379000	8A	Tomato, juice	0.270000	1.500	0.300	30% CT
0801380000	8A	Tomato, Tree	1.000000	1.000	1.000	
0802148000	8BC	Eggplant	1.000000	1.000	1.000	
0802234000	8BC	Okra	1.000000	1.000	1.000	
0802270000	8B	Pepper, bell	1.000000	1.000	0.350	35% CT
0802270001	8B	Pepper, bell-babyfood	1.000000	1.000	0.350	35% CT
0802271000	8B	Pepper, bell, dried	1.000000	1.000	0.350	35% CT
0802271001	8B	Pepper, bell, dried-babyfood	1.000000	1.000	0.350	35% CT
0802272000	8BC	Pepper, nonbell	1.000000	1.000	0.350	35% CT
0802272001	8BC	Pepper, nonbell-babyfood	1.000000	1.000	0.350	35% CT
0802273000	8BC	Pepper, nonbell, dried	1.000000	1.000	0.350	35% CT
0901075000	9A	Cantaloupe	0.500000	1.000	0.400	40% CT
0901187000	9A	Honeydew melon	0.500000	1.000	0.300	30% CT
0901399000	9A	Watermelon	0.500000	1.000	0.250	25% CT
0901400000	9A	Watermelon, juice	0.500000	1.000	0.250	25% CT
0902021000	9B	Balsam pear	0.500000	1.000	1.000	
0902088000	9B	Chayote, fruit	0.500000	1.000	1.000	
0902102000	9B	Chinese waxgourd	0.500000	1.000	1.000	
0902135000	9B	Cucumber	0.500000	1.000	0.100	10% CT
0902308000	9B	Pumpkin	0.500000	1.000	0.100	10% CT
0902309000	9B	Pumpkin, seed	0.500000	1.000	0.100	10% CT
0902356000	9B	Squash, summer	0.500000	1.000	0.150	15% CT
0902356001	9B	Squash, summer-babyfood	0.500000	1.000	0.150	15% CT
0902357000	9B	Squash, winter	0.500000	1.000	0.150	15% CT
0902357001	9B	Squash, winter-babyfood	0.500000	1.000	0.150	15% CT
1001106000	10A	Citron	1.000000	1.000	1.000	
1001107000	10A	Citrus hybrids	1.000000	1.000	1.000	
1001108000	10A	Citrus, oil	1.000000	1.000	1.000	
1001240000	10A	Orange	0.610000	1.000	0.250	25% CT
1001241000	10A	Orange, juice	0.610000	0.030	0.250	25% CT
1001241001	10A	Orange, juice-babyfood	0.610000	0.030	0.250	25% CT
1001242000	10A	Orange, peel	0.610000	1.000	0.250	25% CT
1001369000	10A	Tangerine	1.000000	1.000	0.250	25% CT
1001370000	10A	Tangerine, juice	1.000000	2.300	0.250	25% CT
1002197000	10B	Kumquat	1.000000	1.000	1.000	
1002199000	10B	Lemon	1.000000	1.000	0.100	10% CT
1002200000	10B	Lemon, juice	1.000000	2.000	0.100	10% CT
1002200001	10B	Lemon, juice-babyfood	1.000000	2.000	0.100	10% CT
1002201000	10B	Lemon, peel	1.000000	1.000	0.100	10% CT
1002206000	10B	Lime	1.000000	1.000	1.000	
1002207000	10B	Lime, juice	1.000000	2.000	1.000	
1002207001	10B	Lime, juice-babyfood	1.000000	2.000	1.000	
1003180000	10C	Grapefruit	1.000000	1.000	0.300	30% CT
1003181000	10C	Grapefruit, juice	1.000000	2.100	0.300	30% CT
1003307000	10C	Pummelo	1.000000	1.000	1.000	
1100007000	11	Apple, fruit with peel	0.093000	1.000	0.300	30% CT
1100008000	11	Apple, peeled fruit	0.093000	1.000	0.300	30% CT
1100008001	11	Apple, peeled fruit-babyfood	0.093000	1.000	0.300	30% CT
1100009000	11	Apple, dried	0.093000	8.000	0.300	30% CT

1100009001	11	Apple, dried-babyfood	0.093000	8.000	0.300	30% CT
1100010000	11	Apple, juice	0.093000	0.770	0.300	30% CT
1100010001	11	Apple, juice-babyfood	0.093000	0.770	0.300	30% CT
1100011000	11	Apple, sauce	0.093000	1.000	0.300	30% CT
1100011001	11	Apple, sauce-babyfood	0.093000	1.000	0.300	30% CT
1100129000	11	Crabapple	0.600000	1.000	1.000	
1100173500	11	Goji berry	1.000000	1.000	1.000	
1100210000	11	Loquat	0.600000	1.000	1.000	
1100266000	11	Pear	0.600000	1.000	0.050	5% CT
1100266001	11	Pear-babyfood	0.600000	1.000	0.050	5% CT
1100267000	11	Pear, dried	0.600000	6.250	0.050	5% CT
1100268000	11	Pear, juice	0.600000	1.000	0.050	5% CT
1100268001	11	Pear, juice-babyfood	0.600000	1.000	0.050	5% CT
1100310000	11	Quince	0.600000	1.000	1.000	
1201090000	12A	Cherry	3.000000	1.000	0.250	25% CT
1201090001	12A	Cherry-babyfood	3.000000	1.000	0.250	25% CT
1201091000	12A	Cherry, juice	3.000000	1.500	0.250	25% CT
1201091001	12A	Cherry, juice-babyfood	3.000000	1.500	0.250	25% CT
1202012000	12B	Apricot	3.000000	1.000	1.000	
1202012001	12B	Apricot-babyfood	3.000000	1.000	1.000	
1202013000	12B	Apricot, dried	3.000000	6.000	1.000	
1202014000	12B	Apricot, juice	3.000000	1.000	1.000	
1202014001	12B	Apricot, juice-babyfood	3.000000	1.000	1.000	
1202230000	12B	Nectarine	3.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
1202260000	12B	Peach	3.000000	1.000	0.050	5% CT
1202260001	12B	Peach-babyfood	3.000000	1.000	0.050	5% CT
1202261000	12B	Peach, dried	3.000000	7.000	0.050	5% CT
1202261001	12B	Peach, dried-babyfood	3.000000	7.000	0.050	5% CT
1202262000	12B	Peach, juice	3.000000	1.000	0.050	5% CT
1202262001	12B	Peach, juice-babyfood	3.000000	1.000	0.050	5% CT
1203285000	12C	Plum	3.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
1203285001	12C	Plum-babyfood	3.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
1203286000	12C	Plum, prune, fresh	3.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
1203286001	12C	Plum, prune, fresh-babyfood	3.000000	1.000	0.025	<2.5%
		Full comment: <2.5% CT				
1203287000	12C	Plum, prune, dried	3.000000	5.000	0.025	<2.5%
		Full comment: <2.5% CT				
1203287001	12C	Plum, prune, dried-babyfood	3.000000	5.000	0.025	<2.5%
		Full comment: <2.5% CT				
1203288000	12C	Plum, prune, juice	3.000000	1.400	0.025	<2.5%
		Full comment: <2.5% CT				
1203288001	12C	Plum, prune, juice-babyfood	3.000000	1.400	0.025	<2.5%
		Full comment: <2.5% CT				
1301055000	13A	Blackberry	2.500000	1.000	0.150	15% CT
1301056000	13A	Blackberry, juice	2.500000	1.000	0.150	15% CT
1301056001	13A	Blackberry, juice-babyfood	2.500000	1.000	0.150	15% CT
1301058000	13A	Boysenberry	2.500000	1.000	0.150	15% CT
1301208000	13A	Loganberry	2.500000	1.000	0.150	15% CT
1301320000	13A	Raspberry	2.500000	1.000	0.150	15% CT
1301320001	13A	Raspberry-babyfood	2.500000	1.000	0.150	15% CT
1301321000	13A	Raspberry, juice	2.500000	1.000	0.150	15% CT
1301321001	13A	Raspberry, juice-babyfood	2.500000	1.000	0.150	15% CT
1302057000	13B	Blueberry	3.500000	1.000	0.100	10% CT
1302057001	13B	Blueberry-babyfood	3.500000	1.000	0.100	10% CT
1302136000	13B	Currant	3.500000	1.000	1.000	
1302137000	13B	Currant, dried	3.500000	1.000	1.000	
1302149000	13B	Elderberry	3.500000	1.000	1.000	
1302174000	13B	Gooseberry	3.500000	1.000	1.000	
1302191000	13B	Huckleberry	3.500000	1.000	1.000	
1304175000	13D	Grape	0.170000	1.000	0.300	30% CT
1304176000	13D	Grape, juice	0.170000	1.150	0.300	30% CT
1304176001	13D	Grape, juice-babyfood	0.170000	1.150	0.300	30% CT
1307130000	13G	Cranberry	0.050000	1.000	1.000	
1307130001	13G	Cranberry-babyfood	0.050000	1.000	1.000	
1307131000	13G	Cranberry, dried	0.050000	1.000	1.000	
1307132000	13G	Cranberry, juice	0.050000	1.100	1.000	
1307132001	13G	Cranberry, juice-babyfood	0.050000	1.100	1.000	
1307359000	13G	Strawberry	0.500000	1.000	0.050	5% CT
1307359001	13G	Strawberry-babyfood	0.500000	1.000	0.050	5% CT
1307360000	13G	Strawberry, juice	0.500000	1.000	0.050	5% CT
1307360001	13G	Strawberry, juice-babyfood	0.500000	1.000	0.050	5% CT

1400003000	14	Almond		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1400003001	14	Almond-babyfood		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1400004000	14	Almond, oil		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1400004001	14	Almond, oil-babyfood		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1400059000	14	Brazil nut		0.050000	1.000	1.000	
1400068000	14	Butternut		0.050000	1.000	1.000	
1400081000	14	Cashew		0.050000	1.000	1.000	
1400092000	14	Chestnut		0.050000	1.000	1.000	
1400155000	14	Hazelnut		0.050000	1.000	0.050	5% CT
1400156000	14	Hazelnut, oil		0.050000	1.000	0.050	5% CT
1400185000	14	Hickory nut		0.050000	1.000	1.000	
1400213000	14	Macadamia nut		0.050000	1.000	1.000	
1400269000	14	Pecan		0.050000	1.000	0.150	15% CT
1400278000	14	Pine nut		0.050000	1.000	1.000	
1400282000	14	Pistachio		0.050000	1.000	0.050	5% CT
1400391000	14	Walnut		0.050000	1.000	0.150	10% CT
1500025000	15	Barley, pearled barley		0.050000	1.000	0.150	
1500025001	15	Barley, pearled barley-babyfood		0.050000	1.000	0.150	
1500026000	15	Barley, flour		0.050000	1.000	0.150	
1500026001	15	Barley, flour-babyfood		0.050000	1.000	0.150	
1500027000	15	Barley, bran		0.050000	1.000	0.150	
1500065000	15	Buckwheat		0.050000	1.000	0.150	
1500066000	15	Buckwheat, flour		0.050000	1.000	0.150	
1500120000	15	Corn, field, flour		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500120001	15	Corn, field, flour-babyfood		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500121000	15	Corn, field, meal		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500121001	15	Corn, field, meal-babyfood		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500122000	15	Corn, field, bran		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500123000	15	Corn, field, starch		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500123001	15	Corn, field, starch-babyfood		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500124000	15	Corn, field, syrup		0.050000	1.500	0.025	<2.5%
		Full comment: <2.5% CT					
1500124001	15	Corn, field, syrup-babyfood		0.050000	1.500	0.025	<2.5%
		Full comment: <2.5% CT					
1500125000	15	Corn, field, oil		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500125001	15	Corn, field, oil-babyfood		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500126000	15	Corn, pop		0.050000	1.000	0.025	<2.5%
		Full comment: <2.5% CT					
1500127000	15	Corn, sweet		0.050000	1.000	0.010	<1% CT
1500127001	15	Corn, sweet-babyfood		0.050000	1.000	0.010	<1% CT
1500226000	15	Millet, grain		0.050000	1.000	0.150	
1500231000	15	Oat, bran		0.050000	1.000	0.150	
1500232000	15	Oat, flour		0.050000	1.000	0.150	
1500232001	15	Oat, flour-babyfood		0.050000	1.000	0.150	
1500233000	15	Oat, groats/rolled oats		0.050000	1.000	0.150	
1500233001	15	Oat, groats/rolled oats-babyfood		0.050000	1.000	0.150	
1500323000	15	Rice, white		0.050000	1.000	0.150	Inadve
		Full comment: Inadvertent residues					
1500323001	15	Rice, white-babyfood		0.050000	1.000	0.150	Inadve
		Full comment: Inadvertent residues					
1500324000	15	Rice, brown		0.050000	1.000	0.150	Inadve
		Full comment: Inadvertent residues					
1500324001	15	Rice, brown-babyfood		0.050000	1.000	0.150	Inadve
		Full comment: Inadvertent residues					
1500325000	15	Rice, flour		0.050000	1.000	0.150	Inadve
		Full comment: Inadvertent residues					
1500325001	15	Rice, flour-babyfood		0.050000	1.000	0.150	Inadve
		Full comment: Inadvertent residues					
1500326000	15	Rice, bran		0.050000	1.000	0.150	Inadve
		Full comment: Inadvertent residues					
1500326001	15	Rice, bran-babyfood		0.050000	1.000	0.150	Inadve
		Full comment: Inadvertent residues					

1500328000	15	Rye, grain	0.050000	1.000	0.150	
1500329000	15	Rye, flour	0.050000	1.000	0.150	
1500344000	15	Sorghum, grain	0.050000	1.000	0.150	15% CT
1500345000	15	Sorghum, syrup	0.050000	1.000	0.150	15% CT
1500381000	15	Triticale, flour	0.050000	1.000	0.150	
1500381001	15	Triticale, flour-babyfood	0.050000	1.000	0.150	
1500401000	15	Wheat, grain	0.050000	1.000	0.150	15% CT
1500401001	15	Wheat, grain-babyfood	0.050000	1.000	0.150	15% CT
1500402000	15	Wheat, flour	0.050000	1.000	0.150	15% CT
1500402001	15	Wheat, flour-babyfood	0.050000	1.000	0.150	15% CT
1500403000	15	Wheat, germ	0.050000	1.000	0.150	15% CT
1500404000	15	Wheat, bran	0.050000	1.000	0.150	15% CT
1500405000	15	Wild rice	0.050000	1.000	1.000	Inadve
		Full comment: Inadvertent residues				
1901028000	19A	Basil, fresh leaves	8.000000	1.000	1.000	
1901028001	19A	Basil, fresh leaves-babyfood	8.000000	1.000	1.000	
1901029000	19A	Basil, dried leaves	48.000000	1.000	1.000	
1901029001	19A	Basil, dried leaves-babyfood	48.000000	1.000	1.000	
1901102500	19A	Chive, dried leaves	48.000000	1.000	1.000	
1901118000	19A	Cilantro, leaves	8.000000	1.000	1.000	
1901118001	19A	Cilantro, leaves-babyfood	8.000000	1.000	1.000	
1901144000	19A	Dillweed	8.000000	1.000	1.000	
1901184000	19A	Herbs, other	48.000000	1.000	1.000	
1901184001	19A	Herbs, other-babyfood	48.000000	1.000	1.000	
1901202000	19A	Lemongrass	8.000000	1.000	1.000	
1901220000	19A	Marjoram	8.000000	1.000	1.000	
1901220001	19A	Marjoram-babyfood	8.000000	1.000	1.000	
1901249000	19A	Parsley, dried leaves	48.000000	1.000	1.000	
1901249001	19A	Parsley, dried leaves-babyfood	48.000000	1.000	1.000	
1901334000	19A	Savory	8.000000	1.000	1.000	
2001163000	20A	Flax seed, oil	0.050000	1.000	1.000	
2001319000	20A	Rapeseed, oil	0.050000	1.000	1.000	
2001319001	20A	Rapeseed, oil-babyfood	0.050000	1.000	1.000	
2001336000	20A	Sesame, seed	0.050000	1.000	1.000	
2001336001	20A	Sesame, seed-babyfood	0.050000	1.000	1.000	
2001337000	20A	Sesame, oil	0.050000	1.000	1.000	
2001337001	20A	Sesame, oil-babyfood	0.050000	1.000	1.000	
2002330000	20B	Safflower, oil	0.050000	1.000	1.000	
2002330001	20B	Safflower, oil-babyfood	0.050000	1.000	1.000	
2002364000	20B	Sunflower, seed	0.050000	1.000	1.000	
2002365000	20B	Sunflower, oil	0.050000	1.000	1.000	
2002365001	20B	Sunflower, oil-babyfood	0.050000	1.000	1.000	
2003114001	20C	Coconut, oil-babyfood	0.050000	1.000	1.000	
2003128000	20C	Cottonseed, oil	6.000000	1.000	0.100	10% CT
2003128001	20C	Cottonseed, oil-babyfood	6.000000	1.000	0.100	10% CT
3100044000	31	Beef, meat	0.300000	1.000	0.350	
3100044001	31	Beef, meat-babyfood	0.300000	1.000	0.350	
3100045000	31	Beef, meat, dried	0.300000	1.920	0.350	
3100046000	31	Beef, meat byproducts	0.300000	1.000	0.350	
3100046001	31	Beef, meat byproducts-babyfood	0.300000	1.000	0.350	
3100047000	31	Beef, fat	0.300000	1.000	0.350	
3100047001	31	Beef, fat-babyfood	0.300000	1.000	0.350	
3100048000	31	Beef, kidney	0.300000	1.000	0.350	
3100049000	31	Beef, liver	0.300000	1.000	0.350	
3100049001	31	Beef, liver-babyfood	0.300000	1.000	0.350	
3200169000	32	Goat, meat	0.300000	1.000	0.350	
3200170000	32	Goat, meat byproducts	0.300000	1.000	0.350	
3200171000	32	Goat, fat	0.300000	1.000	0.350	
3200172000	32	Goat, kidney	0.300000	1.000	0.350	
3200173000	32	Goat, liver	0.300000	1.000	0.350	
3300189000	33	Horse, meat	0.300000	1.000	0.350	
3400290000	34	Pork, meat	0.300000	1.000	0.350	
3400290001	34	Pork, meat-babyfood	0.300000	1.000	0.350	
3400291000	34	Pork, skin	0.300000	1.000	0.350	
3400292000	34	Pork, meat byproducts	0.300000	1.000	0.350	
3400292001	34	Pork, meat byproducts-babyfood	0.300000	1.000	0.350	
3400293000	34	Pork, fat	0.300000	1.000	0.350	
3400293001	34	Pork, fat-babyfood	0.300000	1.000	0.350	
3400294000	34	Pork, kidney	0.300000	1.000	0.350	
3400295000	34	Pork, liver	0.300000	1.000	0.350	
3500339000	35	Sheep, meat	0.300000	1.000	0.350	
3500339001	35	Sheep, meat-babyfood	0.300000	1.000	0.350	
3500340000	35	Sheep, meat byproducts	0.300000	1.000	0.350	
3500341000	35	Sheep, fat	0.300000	1.000	0.350	
3500341001	35	Sheep, fat-babyfood	0.300000	1.000	0.350	

3500342000	35	Sheep, kidney	0.300000	1.000	0.350
3500343000	35	Sheep, liver	0.300000	1.000	0.350
3600222000	36	Milk, fat	0.100000	1.000	0.350
3600222001	36	Milk, fat-baby food/infant formu	0.100000	1.000	0.350
3600223000	36	Milk, nonfat solids	0.100000	1.000	0.350
3600223001	36	Milk, nonfat solids-baby food/in	0.100000	1.000	0.350
3600224000	36	Milk, water	0.100000	1.000	0.350
3600224001	36	Milk, water-babyfood/infant form	0.100000	1.000	0.350
3600225001	36	Milk, sugar (lactose)-baby food/	0.100000	1.000	0.350
3800221000	38	Meat, game	0.300000	1.000	0.350
3900312000	39	Rabbit, meat	0.300000	1.000	0.350
4000093000	40	Chicken, meat	0.050000	1.000	0.150
4000093001	40	Chicken, meat-babyfood	0.050000	1.000	0.150
4000094000	40	Chicken, liver	0.050000	1.000	0.150
4000095000	40	Chicken, meat byproducts	0.050000	1.000	0.150
4000095001	40	Chicken, meat byproducts-babyfoo	0.050000	1.000	0.150
4000096000	40	Chicken, fat	0.050000	1.000	0.150
4000096001	40	Chicken, fat-babyfood	0.050000	1.000	0.150
4000097000	40	Chicken, skin	0.050000	1.000	0.150
4000097001	40	Chicken, skin-babyfood	0.050000	1.000	0.150
5000382000	50	Turkey, meat	0.050000	1.000	0.150
5000382001	50	Turkey, meat-babyfood	0.050000	1.000	0.150
5000383000	50	Turkey, liver	0.050000	1.000	0.150
5000383001	50	Turkey, liver-babyfood	0.050000	1.000	0.150
5000384000	50	Turkey, meat byproducts	0.050000	1.000	0.150
5000384001	50	Turkey, meat byproducts-babyfood	0.050000	1.000	0.150
5000385000	50	Turkey, fat	0.050000	1.000	0.150
5000385001	50	Turkey, fat-babyfood	0.050000	1.000	0.150
5000386000	50	Turkey, skin	0.050000	1.000	0.150
5000386001	50	Turkey, skin-babyfood	0.050000	1.000	0.150
6000301000	60	Poultry, other, meat	0.050000	1.000	0.150
6000302000	60	Poultry, other, liver	0.050000	1.000	0.150
6000303000	60	Poultry, other, meat byproducts	0.050000	1.000	0.150
6000304000	60	Poultry, other, fat	0.050000	1.000	0.150
6000305000	60	Poultry, other, skin	0.050000	1.000	0.150
7000145000	70	Egg, whole	0.020000	1.000	0.150
7000145001	70	Egg, whole-babyfood	0.020000	1.000	0.150
7000146000	70	Egg, white	0.020000	1.000	0.150
7000146001	70	Egg, white (solids)-babyfood	0.020000	1.000	0.150
7000147000	70	Egg, yolk	0.020000	1.000	0.150
7000147001	70	Egg, yolk-babyfood	0.020000	1.000	0.150
8000157000	80	Fish-freshwater finfish	0.050000	1.000	1.000
8000158000	80	Fish-freshwater finfish, farm ra	0.050000	1.000	1.000
8000159000	80	Fish-saltwater finfish, tuna	0.050000	1.000	1.000
8000160000	80	Fish-saltwater finfish, other	0.050000	1.000	1.000
8000161000	80	Fish-shellfish, crustacean	0.050000	1.000	1.000
8000162000	80	Fish-shellfish, mollusc	0.050000	1.000	1.000
8601000000	86A	Water, direct, all sources	0.084900	1.000	1.000
		Full comment: 84.9 ppb. WI-corn ground water scenario.			84.9 p
8602000000	86B	Water, indirect, all sources	0.084900	1.000	1.000
		Full comment: 84.9 ppb. WI-corn ground water scenario.			84.9 p
9500001000	O	Acerola	1.000000	1.000	1.000
9500016000	O	Artichoke, globe	2.500000	1.000	0.150
9500019500	O	Atemoya	0.300000	1.000	1.000
9500020000	O	Avocado	1.000000	1.000	0.010
9500023000	O	Banana	0.390000	1.000	1.000
9500023001	O	Banana-babyfood	0.390000	1.000	1.000
9500024000	O	Banana, dried	0.390000	3.900	1.000
9500024001	O	Banana, dried-babyfood	0.390000	3.900	1.000
9500074000	O	Canistel	1.000000	1.000	1.000
9500089000	O	Cherimoya	0.300000	1.000	1.000
9500111000	O	Coconut, meat	0.050000	1.000	1.000
9500111001	O	Coconut, meat-babyfood	0.050000	1.000	1.000
9500112000	O	Coconut, dried	0.050000	2.100	1.000
9500113000	O	Coconut, milk	0.050000	1.000	1.000
9500114000	O	Coconut, oil	0.050000	1.000	1.000
9500115000	O	Coffee, roasted bean	1.000000	1.000	1.000
9500116000	O	Coffee, instant	1.000000	1.000	1.000
9500151000	O	Feijoa	1.000000	1.000	1.000
9500177000	O	Grape, leaves	0.170000	1.000	0.300
9500178000	O	Grape, raisin	0.170000	1.950	0.300
9500183000	O	Guava	1.000000	1.000	1.000
9500183001	O	Guava-babyfood	1.000000	1.000	1.000
9500188000	O	Hop	6.000000	1.000	1.000
9500209000	O	Longan	3.000000	1.000	1.000

9500211000 O	Lychee	3.000000	1.000	1.000	
9500212000 O	Lychee, dried	3.000000	1.850	1.000	
9500215000 O	Mango	1.000000	1.000	1.000	
9500215001 O	Mango-babyfood	1.000000	1.000	1.000	
9500216000 O	Mango, dried	1.000000	1.000	1.000	
9500217000 O	Mango, juice	1.000000	1.000	1.000	
9500217001 O	Mango, juice-babyfood	1.000000	1.000	1.000	
9500235000 O	Olive	2.000000	1.000	1.000	
9500236000 O	Olive, oil	2.000000	1.000	1.000	
9500245000 O	Papaya	1.000000	1.000	1.000	
9500245001 O	Papaya-babyfood	1.000000	1.000	1.000	
9500246000 O	Papaya, dried	1.000000	1.800	1.000	
9500247000 O	Papaya, juice	1.000000	1.500	1.000	
9500252000 O	Passionfruit	1.000000	1.000	1.000	
9500252001 O	Passionfruit-babyfood	1.000000	1.000	1.000	
9500253000 O	Passionfruit, juice	1.000000	1.000	1.000	
9500253001 O	Passionfruit, juice-babyfood	1.000000	1.000	1.000	
9500263000 O	Peanut	0.450000	1.000	0.010	<1% CT
9500264000 O	Peanut, butter	0.450000	1.890	0.010	<1% CT
9500265000 O	Peanut, oil	0.450000	1.000	0.010	<1% CT
9500277000 O	Persimmon	3.000000	1.000	1.000	
9500283000 O	Plantain	0.500000	1.000	1.000	
9500284000 O	Plantain, dried	0.500000	3.900	1.000	
9500289000 O	Pomegranate	0.900000	1.000	0.450	45% CT
9500333000 O	Sapote, Mamey	1.000000	1.000	1.000	
9500346000 O	Soursop	0.300000	1.000	1.000	
9500351000 O	Spanish lime	3.000000	1.000	1.000	
9500358000 O	Starfruit	1.000000	1.000	1.000	
9500361000 O	Sugar apple	0.300000	1.000	1.000	
9500362000 O	Sugarcane, sugar	0.150000	1.000	0.025	<2.5%
	Full comment: <2.5% CT				
9500362001 O	Sugarcane, sugar-babyfood	0.150000	1.000	0.025	<2.5%
	Full comment: <2.5% CT				
9500363000 O	Sugarcane, molasses	50.000000	1.000	0.025	<2.5%
	Full comment: <2.5% CT				
9500363001 O	Sugarcane, molasses-babyfood	50.000000	1.000	0.025	<2.5%
	Full comment: <2.5% CT				
9500372000 O	Tea, dried	50.000000	1.000	1.000	
9500373000 O	Tea, instant	50.000000	1.000	1.000	
9500398000 O	Watercress	3.500000	1.000	1.000	

Attachment 4. Chronic Results File.

US EPA Ver. 3.16, 03-08-d
DEEM-FCID Chronic analysis for IMIDACLOPRID NHANES 2003-2008 2-day
Residue file name: K:\\$\$\$\$imidacloprid\129099Chronic 10-MAR-2017.R08
Adjustment factor #2 used.
Analysis Date 03-10-2017/15:40:03 Residue file dated: 03-10-2017/15:21:26
Reference dose (RfD, Chronic) = .08 mg/kg bw/day
COMMENT 1: DRA
=====
Total exposure by population subgroup
=====

Population Subgroup	Total Exposure	
	mg/kg body wt/day	Percent of Rfd
Total US Population	0.004465	5.6%
Hispanic	0.004356	5.4%
Non-Hisp-White	0.004546	5.7%
Non-Hisp-Black	0.003823	4.8%
Non-Hisp-Other	0.005198	6.5%
Nursing Infants	0.003714	4.6%
Non-Nursing Infants	0.009706	12.1%
Female 13+ PREG	0.003989	5.0%
Children 1-6	0.007716	9.6%
Children 7-12	0.004230	5.3%
Male 13-19	0.003154	3.9%
Female 13-19/NP	0.003280	4.1%
Male 20+	0.004017	5.0%
Female 20+/NP	0.004425	5.5%
Seniors 55+	0.004230	5.3%
All Infants	0.007856	9.8%
Female 13-50	0.004127	5.2%
Children 1-2	0.009365	11.7%
Children 3-5	0.007075	8.8%
Children 6-12	0.004500	5.6%
Youth 13-19	0.003216	4.0%
Adults 20-49	0.004168	5.2%
Adults 50-99	0.004308	5.4%
Female 13-49	0.004119	5.1%

Attachment 5. Percent Crop Treated Data (Memo, C. Paisley-Jones, 06-OCT-2015).

Date: September 15, 2015
 Screening Level Estimates of Agricultural Uses of Imidacloprid (129099)
 Sorted Alphabetically
 Reporting Years: 2004-2013

	Crop	Annual Average	Percent Crop Treated	
		Lbs. A.I. Applied	Average	Maximum
1	Almonds	1,000	<2.5	<2.5
2	Apples	10,000	30	45
3	Artichokes	<500	15	60
4	Avocados	<500	<1	<2.5
5	Beans, Green	3,000	5	10
6	Blueberries	1,000	10	20
7	Broccoli	10,000	65	90
8	Brussels Sprouts *	<500	50	85
9	Cabbage	4,000	30	45
10	Caneberries	<500	15	25
11	Cantaloupes	9,000	40	60
12	Carrots	4,000	15	45
13	Cauliflower	5,000	60	90
14	Celery	1,000	10	20
15	Cherries	4,000	25	50
16	Chicory *	<500	10	20
17	Corn	1,000	<1	<2.5
18	Corn (Seed Treatment)‡	30,000	<2.5	<2.5
19	Cotton	50,000	5	10
20	Cotton (Seed Treatment)‡	50,000	10	20
21	Cucumbers	3,000	10	20
22	Dry Beans/Peas	<500	<1	<2.5
23	Garlic	<500	5	5
24	Grapefruit	8,000	30	60
25	Grapes	60,000	30	50
26	Hazelnuts	<500	5	20
27	Honeydews	2,000	30	50
28	Lemons	3,000	10	25
29	Lettuce	40,000	65	85
30	Nectarines	<500	<2.5	<2.5
31	Onions	1,000	<2.5	5
32	Oranges	60,000	25	40
33	Peaches	1,000	5	15
34	Peanuts	1,000	<1	<2.5
35	Pears	1,000	5	15
36	Peas, Green	<500	<2.5	<2.5
37	Pecans	20,000	15	20
38	Peppers	9,000	35	50

39	Pistachios	3,000	5	15
40	Plums/Prunes	<500	<2.5	10
41	Pluots *	<500	20	65
42	Pomegranates *	4,000	45	65
43	Potatoes	70,000	35	50
44	Potatoes (Seed Treatment)‡	30,000	15	20
45	Pumpkins	2,000	10	20
46	Sorghum	<500	<1	<2.5
47	Sorghum (Seed Treatment)‡	10,000	15	20
48	Soybeans	30,000	<2.5	<2.5
49	Soybeans(Seed Treatment)‡	400,000	10	25
50	Spinach	2,000	25	40
51	Squash	2,000	15	30
52	Strawberries	2,000	5	15
53	Sugar Beets	2,000	<2.5	5
54	Sugar Beets (Seed Treatment)‡	<500	<2.5	<2.5
55	Sugarcane	<500	<2.5	<2.5
56	Sweet Corn	1,000	<1	<2.5
57	Tangelos	<500	15	20
58	Tangerines	6,000	25	40
59	Tobacco	10,000	25	40
60	Tomatoes	30,000	30	60
61	Walnuts	3,000	10	20
62	Watermelons	9,000	25	45
63	Wheat (Seed Treatment)‡	100,000	15	20

All numbers are rounded.

<500: less than 500 pounds of active ingredients.

<2.5: less than 2.5 percent of crop is treated.

<1: less than 1 percent of crop is treated.

* Based on CA DPR data only (80% or more of U.S. acres grown are in California)

‡ The surveying period for seed treatment uses does not always cover the entire period of the SLUA.

Crop	First Year of Seed Treatment Surveying
Corn	2004
Cotton	2004
Soybeans	2006
Potatoes	2009
Sorghum	2009
Sugar Beets	2009
Wheat	2009

SLUA data sources include:

USDA-NASS (United States Department of Agriculture's National Agricultural Statistics Service)

Private Pesticide Market Research

California DPR (Department of Pesticide Regulation)

These results reflect amalgamated data developed by the Agency and are releasable to the public.

Attachment 6: Acute Exposure and Risk Estimates – Food Only

US EPA
DEEM-FCID ACUTE Analysis for IMIDACLOPRID
Residue file: 129099Acute_FOOD ONLY 10-MAR-2017.R08
Adjustment factor #2 NOT used.
Analysis Date: 03-10-2017/15:30:57 Residue file dated: 03-10-2017/15:24:00
NOEL (Acute) = 8.000000 mg/kg body-wt/day
RAC/FF intake summed over 24 hours
Run Comment: "DRA"
=====

Summary calculations--per capita:

--- 95th Percentile---			--- 99th Percentile---			---99.9th Percentile---		
Exposure	% aRfD	MOE	Exposure	% aRfD	MOE	Exposure	% aRfD	MOE
<hr/>								
Total US Population:								
0.027857	34.82	287	0.050563	63.20	158	0.089414	111.77	89
All Infants:								
0.062600	78.25	127	0.099835	124.79	80	0.141735	177.17	56
Children 1-2:								
0.069709	87.14	114	0.098887	123.61	80	0.131761	164.70	60
Children 3-5:								
0.054599	68.25	146	0.081115	101.39	98	0.128454	160.57	62
Children 6-12:								
0.033516	41.90	238	0.047442	59.30	168	0.078684	98.36	101
Youth 13-19:								
0.019626	24.53	407	0.030114	37.64	265	0.045468	56.83	175
Adults 20-49:								
0.020089	25.11	398	0.029459	36.82	271	0.048699	60.87	164
Adults 50-99:								
0.020870	26.09	383	0.031094	38.87	257	0.044908	56.14	178
Female 13-49:								
0.020373	25.47	392	0.030426	38.03	262	0.052786	65.98	151

Attachment 7: Chronic Exposure and Risk Estimates – Food Only

US EPA Ver. 3.16, 03-08-d
DEEM-FCID Chronic analysis for IMIDACLOPRID NHANES 2003-2008 2-day
Residue file name: K:\\$\$\$\$imidacloprid\129099Chronic_FOOD ONLY 10-MAR-2017.R08
Adjustment factor #2 used.
Analysis Date 03-10-2017/15:27:50 Residue file dated: 03-10-2017/15:22:01
Reference dose (RfD, Chronic) = .08 mg/kg bw/day
COMMENT 1: DRA
=====
Total exposure by population subgroup

Population Subgroup	Total Exposure	
	mg/kg body wt/day	Percent of Rfd
Total US Population	0.002687	3.4%
Hispanic	0.002659	3.3%
Non-Hisp-White	0.002718	3.4%
Non-Hisp-Black	0.002356	2.9%
Non-Hisp-Other	0.003149	3.9%
Nursing Infants	0.002106	2.6%
Non-Nursing Infants	0.003793	4.7%
Female 13+ PREG	0.002315	2.9%
Children 1-6	0.005439	6.8%
Children 7-12	0.002748	3.4%
Male 13-19	0.001932	2.4%
Female 13-19/NP	0.001911	2.4%
Male 20+	0.002361	3.0%
Female 20+/NP	0.002558	3.2%
Seniors 55+	0.002511	3.1%
All Infants	0.003272	4.1%
Female 13-50	0.002358	2.9%
Children 1-2	0.006801	8.5%
Children 3-5	0.004915	6.1%
Children 6-12	0.002942	3.7%
Youth 13-19	0.001919	2.4%
Adults 20-49	0.002395	3.0%
Adults 50-99	0.002555	3.2%
Female 13-49	0.002352	2.9%